Revised Draft

Framework for Developing the National System of Marine Protected Areas

NATIONAL Marine Protected Areas CENTER

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I. EXECUTIVE SUMMARY 1

II. FOR MORE INFORMATION AND TO SUBMIT COMMENTS 3

III. INTRODUCTION 3

A. BACKGROUND 3
B. DEVELOPING THE FRAMEWORK 6
C. BENEFITS OF AN EFFECTIVE NATIONAL SYSTEM 6

IV. DEFINING THE NATIONAL SYSTEM OF MPAS 9

A. NATIONAL SYSTEM PURPOSE 9
B. NATIONAL SYSTEM GOALS AND PRIORITY CONSERVATION OBJECTIVES 9
C. NATIONAL SYSTEM DESIGN AND IMPLEMENTATION PRINCIPLES 11
D. MPA ELIGIBILITY CRITERIA 13
E. MPA CATEGORIES 16

V. BUILDING THE NATIONAL SYSTEM OF MPAS 18

A. SUMMARY AND SEQUENCE 18
B. NOMINATION PROCESS FOR EXISTING MPAS 18
C. THE OFFICIAL LIST OF MPAS 20
1. Adding MPAs to the List and National System 20
2. Removing MPAs from the List and National System 21
D. IDENTIFYING NATIONAL SYSTEM CONSERVATION GAPS 21
E. ESTABLISHING NEW NATIONAL SYSTEM MPAS 23

VI. IMPLEMENTING THE NATIONAL SYSTEM OF MPAS 24

A. ENHANCING REGIONAL COORDINATION AND COLLABORATION 24
1. Improving MPA Stewardship, Science and Effectiveness 27
2. Regional MPA Planning 28
B. NATIONAL AND INTERNATIONAL COORDINATION 29
C. EVALUATING NATIONAL SYSTEM EFFECTIVENESS 30
D. FEDERAL AGENCY RESPONSIBILITIES TO AVOID HARM 31
E. TRACKING AND REPORTING 33
F. MPA FEDERAL ADVISORY COMMITTEE 35
G. ROLE OF THE NATIONAL MPA CENTER IN THE NATIONAL SYSTEM 35

VII. GLOSSARY OF KEY TERMS 36

VIII. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS 39

IX. APPENDICES i

APPENDIX A. ACRONYMS AND ABBREVIATIONS USED i
APPENDIX B. EXISTING U.S. MPA PROGRAMS, FEDERAL MPA INITIATIVES, TRIBAL, AND INTERNATIONAL EFFORTS ii
APPENDIX C. RESPONSE TO COMMENTS ON THE DRAFT FRAMEWORK FOR DEVELOPING THE NATIONAL SYSTEM OF MPAS vii
APPENDIX D. REVISED DRAFT ENVIRONMENTAL ASSESSMENT xvii

I. Executive Summary

Increasing impacts on the world's oceans from development, overfishing, a changing climate, and natural events are straining the health of coastal, Great Lakes, and marine ecosystems. Impacts to these intricately balanced environments include declining fish populations, degradation of coral reefs and other vital habitats, threats to rare or endangered species, and loss of artifacts and areas that represent the United States' (U.S.) diverse cultural heritage. The effects of these losses are significant and jeopardize the social and economic fabric of the nation.

In the U.S. and around the world, marine protected areas (MPAs) are increasingly recognized as an important and promising management tool for mitigating or buffering some of these impacts. When used effectively and as a part of a broader ecosystem-based approach to management, MPAs can help to restore and maintain healthy Great Lakes and marine environments by contributing to the overall protection of critical marine habitats and resources. In this way, effective MPAs also can offer social and economic opportunities for current and future generations, such as tourism, biotechnology, fishing, education, and scientific research.

There are nearly 1,800 existing MPAs in the U.S. that have been established by federal, state, territorial, and local governments to protect and conserve the nation's rich natural and cultural marine heritage and sustainable production resources. These MPAs have been designated to achieve a myriad of conservation objectives, ranging from conservation of biodiversity hotspots, to preservation of sunken historic vessels, to protection of spawning aggregations important to commercial and recreational fisheries. Similarly, the level of protection provided by these MPAs ranges from no-take marine reserves to allowing multiple uses, including fishing.

Recognizing the significant role that U.S. MPAs play in conserving marine heritage and sustainable use, and the lack of a national framework for comprehensive MPA planning, coordination and support, Presidential Executive Order 13158 of May 26, 2000 (Order) calls for the development of a National System of Marine Protected Areas (national system). The Order clearly calls for a *national* and not a *federal* system, and requires collaboration with federal agencies, as well as coastal states and territories, tribes, Federal Fishery Management Councils, and other entities, as appropriate, including the MPA Federal Advisory Committee. It further specifies that the national system be scientifically based, comprehensive, and represent the nation's diverse marine ecosystems and natural and cultural resources.

In order to provide a roadmap for building the national system, the Order calls for the development of a framework for a national system of MPAs and establishes the National MPA Center (MPA Center) within the National Oceanic and Atmospheric Administration to lead its development and implementation. This Revised Draft Framework for Developing the National System of MPAs[1] (Revised Draft Framework) is the second draft. The first draft Framework has been revised with due consideration of over 11,000 comments and recommendations received during its September 2006 to February 2007 public comment period.

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[1] The Revised Draft Framework is available for public comment for 30 days from the date of announcement in the *Federal Register*. For more information see the MPA Center's website <http://www.mpa.gov>.

The Revised Draft Framework recognizes that U.S. MPA programs can achieve more efficient, effective conservation of the nation's important natural and cultural resources by working together rather than separately, and that many solutions require collaboration across programs with their own individual mandates, levels of government, and even internationally. It proposes a national system that is, initially, an assemblage of existing MPA sites, systems, and networks established and managed by federal, state, tribal, or local governments, acknowledging and building upon the contributions of these foundation programs. In addition, the Revised Draft Framework outlines collaborative processes for MPA programs at all levels of government to work together at regional, national and international levels, with public participation, to achieve common conservation objectives through comprehensive MPA planning, identification of enhanced or new MPAs that may be needed, and support for improved MPA science, stewardship and effectiveness.

The Revised Draft Framework outlines the following key components of the national system:

- A set of overarching national system goals and priority conservation objectives.
- MPA eligibility criteria and other key definitions.
- A nomination process for existing MPAs to be included in the national system.
- A science-based, public process for identifying conservation gaps in the national system.
- A process for improving regional and ecosystem-based coordination of MPAs by:
    - creating new or strengthening existing regional forums for MPA coordination,
    - identifying and catalyzing action to address shared priorities for improving MPA science, stewardship and effectiveness, and
    - developing collaborative, ecosystem-based MPA planning to identify and recommend MPAs for inclusion in the new national system.
- Mechanisms for national and international coordination.
- Implementation guidance regarding federal agency responsibilities to avoid harm to resources protected by national system MPAs.
- Mechanisms for monitoring, evaluating, and reporting on national system progress and priorities.

Through collaborative efforts among U.S. MPA programs and stakeholders, the national system can achieve the Order's goal of enhancing the comprehensive conservation of the nation's natural and cultural marine heritage and the ecologically and economically sustainable use of the marine environment for future generations.

II. For More Information and to Submit Comments

Comments on this Revised Draft Framework for Developing the National System of Marine Protected Areas and the corresponding draft Environmental Assessment found in Appendix D of this document will be accepted if received by 11:59 p.m. EDT, 30 calendar days from the date of publication in the *Federal Register*.

An electronic copy of the Revised Draft Framework is available for download at <http://www.mpa.gov>. Please direct all questions concerning the Revised Draft Framework, as well as any requests for paper copies of the document to: Lauren Wenzel, NOAA, at 301-713-3100 x136, or via e-mail at <mpa.comments@noaa.gov>. E-mail requests should state either "Question" or "Paper Copy Request" in the subject line.

All comments regarding the Revised Draft Framework should be submitted to Joseph A. Uravitch, National MPA Center, N/ORM, NOAA, 1305 East-West Highway, Silver Spring, Maryland 20910. Comments submitted by e-mail are preferred; however, those submitted by mail and fax will also be accepted. Comments sent via e-mail should be sent to <mpa.comments@noaa.gov>, and all comments sent by fax should be sent to 301-713-3110. E-mail and fax comments should state "Revised Draft Framework Comments" in the subject line.

III.Introduction

A. Background

With the world's largest Exclusive Economic Zone, the **United States**'[2] (U.S.) coastal, marine and Great Lakes waters support an incredible diversity and wealth of life. These waters also play host to untold special places that represent our rich cultural heritage and connections to the sea. In the same way, myriad human uses, livelihoods, and other activities rely upon the sustained health of our nation's vast natural and cultural heritage.

As human populations grow and use of marine resources increases, so do the pressures and stresses exerted on these intricately balanced ecosystems. Ensuring the long-term health of these ecosystems and the sustained benefits that humans depend upon requires comprehensive management approaches. In the U.S. and many other countries around the world, marine protected areas (MPAs) are increasingly being recognized and used as important tools for the conservation and sustainable use of marine resources, and an important component of a comprehensive management approach.

Recognizing the expanding role and importance of marine protected areas in the U.S., Presidential Executive Order 13158 of May 26, 2000 (Order) directs the Department of Commerce (DOC) National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior (DOI), in consultation with other federal agencies[3], to develop a **National System of Marine Protected Areas** (national system).

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[2] Important terms are bolded the first time they are used and defined in the Glossary found in Section VII of this document.

[3] The Department of Defense, the Department of State, the United States Agency for International Development, the Department of Transportation, the Environmental Protection Agency, the Department of Homeland Security, the National Science Foundation, and other pertinent federal agencies.

The Order specifies that this is to be a *national* and not a *federal* system and requires consultation with all **states** that contain portions of the marine environment, **tribes**, Federal Fishery Management Councils (FMC), and other entities, as appropriate, including the Marine Protected Area Federal Advisory Committee (MPA FAC) established by the Department of Commerce under the Executive Order. It further specifies that the national system be scientifically based, comprehensive, and represent the United States' (U.S.) diverse marine **ecosystems** and the nation's **natural** and **cultural resources**.

In order to provide a roadmap for building the national system, the Order calls for the development of a framework for a national system of MPAs and establishes the National MPA Center (MPA Center) within NOAA to develop the system and coordinate its subsequent implementation. This Revised Draft Framework for Developing the National System of MPAs (Revised Draft Framework) outlines collaborative processes for building an assemblage of existing MPA sites, systems, and **networks** established and managed by federal, state, tribal, or **local governments** and for collectively working together at the **regional** and national levels to achieve common objectives for conserving the nation's important natural and cultural resources. This second version of the draft Framework has been revised with due consideration of comments and recommendations received on the initial draft document during the September 2006 through February 2007 public comment period. After the comment period on this Revised Draft Framework, NOAA will publish the final Framework, again with consideration of input received.

"Based on evidence from existing marine area closures in both temperate and tropical regions, marine reserves and protected areas will be effective tools for addressing conservation needs as part of integrated coastal and marine area management."

"MPAs, areas designated for special protection to enhance the management of marine resources, show promise as components of an ecosystem-based approach for conserving the ocean's living assets."

"Integration of management across the array of federal and state agencies will be needed to develop a national system of MPAs that effectively and efficiently conserves marine resources and provides equitable representation for the diversity of groups with interests in the sea."

Committee on the Evaluation, Design, and Monitoring of Marine Reserves and Protected Areas in the United States, Ocean Studies Board, Commission on Geosciences, Environment, and Resources, National Research Council, /Marine Protected Areas: Tools for Sustaining Ocean Ecosystems./ Washington, D.C.: National Academy Press. 2001.

For the purposes of the national system, the term "**marine protected area**" (MPA) is defined by the Order as, "Any **area** of the **marine environment** that has been **reserved** by Federal, State, territorial, tribal or **local** laws or regulations to provide **lasting protection** for part or all of the natural and cultural resources therein." The term MPA, as defined and further clarified and used in this document, is not synonymous with or limited to "no-take reserves" or "marine reserves." The term MPA used here denotes an array of levels of protection and conservation purposes, from areas that allow multiple use activities to areas that restrict take and/or access. An effective national system must include a science-based and **stakeholder**-informed approach to balancing the types and levels of MPA protections needed to meet the nation's goals for conserving **natural heritage**, **cultural heritage**, and **sustainable production** marine resources. The national system is intended to be inclusive of MPAs across the spectrum of levels of protection, from multiple use to no-take, recognizing that existing MPAs across this spectrum offer different values to the national system that can help meet its goals and objectives.

While MPAs are an important tool for marine conservation, other types of management approaches also are needed to address the breadth of challenges related to marine conservation. Like other tools, MPAs should be selected and designed to meet specific conservation goals. Efforts to develop the national system must be both coordinated and integrated within the larger, evolving ecosystem-based approaches to managing marine resources. Neither the national system nor the Order establish any new legal authorities to designate or manage MPAs, nor do they alter any existing federal, state, local, or tribal MPA laws or programs. Each MPA or program that participates in the national system will continue to be independently managed by its respective agency or agencies, as will any new sites that eventually may be established by those authorities. The national system is therefore envisioned as a "system of sites and systems" that will be developed to achieve conservation and management objectives that could not be accomplished by individual MPAs or MPA programs working independently.

Furthermore, the requirements outlined in the Order, which provides the legal authority for establishing the national system, apply only to the actions of federal agencies. The Order does not regulate the actions of states or tribes, or alter any existing state, local, or tribal authorities or treaties regarding the establishment or management of MPAs or marine resources under their jurisdiction. Finally, nothing in this document is to be construed as altering existing authorities regarding the establishment of federal MPAs in areas of the marine environment subject to the jurisdiction and control of states, tribes, or local governments.

While the Order's requirements apply only to federal agencies, the full and ongoing participation of state, tribal, and local governments is critical to an effective national system. Given the importance of the marine resources they manage and their wealth of experience in doing so, building and implementing the national system in partnership with state, tribal, and local governments is a major emphasis of the Draft Framework. A full description of this range of existing U.S. MPA programs, federal MPA initiatives, tribal, and international efforts can be found in Appendix B. In light of this breadth of existing U.S. MPA responsibilities, the Order recognizes the need and calls for a national, rather than federal, system of MPAs with a geographic scope that spans the United States' waters of the Pacific Ocean, including the Bering Sea; Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea; Arctic Ocean; and the Great Lakes.

By establishing an effective structure for working together, the national system will help to increase the efficient protection of important marine resources; contribute to the nation's overall social and economic health; support government agency cooperation and integration; and improve the public's access to scientific information and decision-making about the nation's marine resources. It affords all system members the protections of Section 5 of the Executive Order ("avoid harm"). The collaborative efforts of the national system also are intended to benefit the participating federal, state, tribal and local government partners through the identification of shared priorities for improving MPA effectiveness and the development of partnerships to provide assistance in meeting those needs. Finally, the national system provides a foundation for cooperation with other countries to conserve resources of common concern.

B. Developing the Framework

The MPA Center is engaging the nation in a participatory dialogue to develop the Framework in order to ensure that the national system represents the nation's interests in the conservation and sustainable use of its natural and cultural marine resources. To this end, the MPA Center continues to work with and solicit input from federal, state, tribal and local government partners, stakeholder groups, and the general public about their perspectives on the national system.

Ongoing recommendations and comments from the MPA FAC, states, tribes, federal agencies, FMC representatives, and non-governmental stakeholders have provided the foundation of information on which this document is constructed. Moreover, some of the text included in this document has been adapted from the recommendation documents and reports submitted by the MPA FAC and states.

The MPA Center led a broad and inclusive public scoping process to develop the initial draft Framework, which was released for public comment in September 2006. Specific recommendations were sought and received from the MPA FAC, composed of 30 individual members of the public representing the range of the nation's MPA stakeholders and geographic areas; an MPA State Advisory Group convened by the Coastal States Organization and the MPA Center; and the Federal Interagency MPA Working Group, which provided ongoing, coordinated advice from federal agencies on the implementation of the Order. The MPA Center also held a series of five regional public dialogue meetings around the country to provide stakeholders with an opportunity to include their input and advice, and three regional state workshops to solicit their views. All feedback, comments, and recommendations received during the scoping process were reviewed and considered in the development of the initial Draft Framework and copies of these and other related materials can be found at <http://www.mpa.gov>.

The Draft Framework was available for public comment between September 2006, and February 2007. In response, the MPA Center received over 11,000 comment submissions comprised of approximately one hundred unique comments. Comments were received from state government agencies, industry and conservation organizations, tribal groups, various advisory bodies, and members of the public from around the country. In addition, in April and October 2007, the MPA Center solicited and received additional advice and comments from the MPA FAC about options for revising the Framework. This second version Draft Framework was written with due consideration of all comments received during the comment period, and the subsequent recommendations from the MPA FAC.

At the close of the comment period for this document, the MPA Center will again review and give due consideration to all comments received. Based on that review, the document will be revised, and the MPA Center will release the final Framework and initiate implementation.

C. Benefits of an Effective National System

A national system may offer numerous benefits above and beyond the benefits realized by participating MPA sites and programs. These benefits accrue to the nation as a whole, as well as at regional and local levels. Moreover, they include both extractive and non-extractive benefits. Although both are important, non-extractive benefits are diffuse and difficult to

measure in monetary terms. The following list reflects some of the potential benefits from the creation and effective management of the national system.[4]

Enhanced Conservation

1. Representativeness – A national system will significantly boost ongoing efforts to preserve the natural and cultural heritage of the United States by ensuring that the diverse characteristics of the natural and social environment of the nation's seas are addressed in a systematic way. The representation of all ecosystem or habitat types in all the nation's marine regions, which includes the Great Lakes, within a single system will help ensure that the full complement of biodiversity and valued areas will be protected.
2. Connectivity – The national system provides an opportunity to protect networks of MPAs that are ecologically connected. An ecological network is a set of discrete MPAs within a region that are connected through dispersal of reproductive stages (eggs, larvae, spores, etc.) or movement of juveniles and adults. Properly designed and located, these networks can link sources and sinks for many marine organisms, which may be essential for some local populations to persist. Planning at the national and regional scales provides an opportunity to address connectivity for many different marine organisms at different spatial scales.
3. Enhanced stewardship – The national system can help protect MPAs against the harmful effects of onsite or offsite activities through enhanced regional coordination, public awareness, site management capacity, recognition of these MPAs as important conservation areas, and the application of the protective measures in Section 5 of the Executive Order.

Social and Economic Benefits

1. Increased tourism – the establishment and recognition of the national system could be an incentive for increased tourism and visitation of some MPAs, as well as an increase in visitation of areas system-wide.

2. Sustained fisheries – One goal of the national system is supporting sustainable production. Improved regional coordination and support for management using MPAs could lead to more and better fishing opportunities for both commercial and recreational fishermen as a result of species recovery, spillover and seeding effects, habitat protection, conservation of old-growth age structure and genetic diversity, establishment of reference sites to examine the regional effects of fishing, and better information on access opportunities.

3. Maintained coastal community identity – Creation of the national system could foster social stability by helping to maintain cultural heritage and economic viability.

4. Non-extractive uses – Creation of the national system could create additional system-wide non-consumptive benefits, such as aesthetic, bequest, and spiritual values; opportunities for viewing and photographic marine wildlife; wilderness experiences;

[4] Adapted from MPA FAC October 2007

scientific research; education; and appreciation of natural resources and the importance of their management.

Public Awareness, Understanding and Education

1. Increased support for marine conservation – The national system recognizes the immense value of our nation's oceans and coasts, and could help boost marine protection by helping to elevate the public profile of MPAs as a management tool. The designation of existing MPAs to the national system could enhance the stature of these sites within their management agency and their local communities, as well as nationally and internationally. This designation also could build political support for investment in MPAs. Recognition of protected area sites in other national or global systems (e.g., United Nations Educational, Scientific, and Cultural Organization's World Heritage Sites, Ramsar Wetland sites, and National Wilderness System sites) has had similar results.

2. More effective and efficient outreach - The national system will be an important and efficient mechanism for increased public awareness and understanding of the importance of marine resources and conservation efforts. Coordinated outreach efforts will increase the impact of outreach by individual MPAs, and could result in cost savings. Including worthy, but currently little known, sites in the national system could bring increased recognition and visibility to these areas.

3. Promotion of cultural heritage – Participation in the national system elevates and enhances the recognition and appreciation of the cultural heritage value of MPA sites.

4. Enhanced educational opportunities – The creation of the national system will present enhanced opportunities for natural and cultural heritage education. This could include onsite education and interpretation, as well as classroom and web-based resources. The national system will be a valuable tool for educating students and visitors about the nation's diverse marine and coastal ecosystems and cultural resources.

5. Enhanced research opportunities – The national system will provide scientists and managers more opportunities to understand marine ecosystems and human interactions with them under different management regimes.

Enhanced Coordination and Strategic Direction

1. Shared national system conservation objectives – The national system will focus on specified priority objectives (see Section IV (B)). By providing a focus for national and regional conservation efforts, these shared objectives will help build consensus about priority conservation actions, and ultimately increase the effectiveness of the diverse conservation efforts of federal agencies, states, tribes and non-governmental partners.

2. Improved gap analysis and planning – The formation of the national system will help highlight gaps in coverage of MPAs in certain regions. This will inform future planning efforts to create MPAs to fill the existing identified gaps.

3. Enhanced inter-agency cooperation – The creation of the national system will be the framework for increased cooperation among the diverse agencies across all levels of government with management authority for the different types of MPAs that comprise the national system. The existence of national system MPAs in the same region is intended

to stimulate cooperative efforts in planning, research and monitoring, sharing of equipment and personnel, enforcement efforts, and educational campaigns.

IV. Defining the National System of MPAs

A. National System Purpose

The purpose of the national system is to support the effective stewardship, conservation, restoration, sustainable use and public understanding and appreciation of the nation's significant natural and cultural marine heritage and sustainable production marine resources with due consideration of the interests of and implications for all who use and care about our marine environment.

B. National System Goals and Priority Conservation Objectives

The national system's goals and objectives are designed to address the requirements of the Order to develop a comprehensive national system of MPAs representing diverse U.S. marine ecosystems, and the nation's natural and cultural resources. These goals, which are all of equal importance, have been designed with input and recommendations of the MPA FAC and other stakeholders to meet the purpose of the national system relative to the conservation of the nation's natural heritage, cultural heritage, and sustainable production marine resources (Table 1).

These goals and priority conservation objectives are intended to guide the development of the comprehensive national system, including identification of both existing MPAs to be included and conservation gaps. The national system as a whole will work collectively to achieve these goals and objectives. It is not expected that any individual MPA, MPA program or system should address all goals or objectives.

Natural Heritage*: The nation's biological communities, habitats, ecosystems, and processes, and the ecological services, uses, and values they provide to this and future generations.*

Cultural Heritage*: The cultural resources that reflect the nation's maritime history and traditional cultural connections to the sea, as well as the uses and values they provide to this and future generations.*

Sustainable Production*: The renewable living resources and their habitats, including, but not limited to, spawning, mating, and nursery grounds, and areas established to minimize incidental by-catch of species, that are important to the nation's social, economic, and cultural well-being.*

Prioritization of Conservation Objectives

Given the magnitude of the task of building a comprehensive national system, the MPA Center will follow a gradual implementation process based on the iterative achievement of the prioritized conservation objectives as outlined in the table below. In this way, building the national system will begin focused on a subset of the highest priority (near-term) objectives for each goal, and as completed move on to the next highest priority conservation objectives for each goal.

These conservation objectives listed below were prioritized by the MPA FAC, with minor revision by the MPA Center, for near-term, mid-term, and long-term implementation based on:

1. the availability of existing scientific or other data necessary to achieve the objective,

2. the importance of the objective, i.e., its relative urgency and significance as compared to the other objectives, and
3. the effort necessary to achieve the objective, in this case the ability to complete the nomination of existing areas and identification of conservation gaps relative to the objective(s) within 1-3 years.

Table 1. Priority Conservation Objectives

Goal 1: Advance comprehensive conservation and management of the nation's biological communities, habitats, ecosystems, and processes, and the ecological services, uses, and values they provide to this and future generations through ecosystem-based MPA approaches.	
Priority Conservation Objectives for Goal 1	
Conserve and manage key reproduction areas and nursery grounds	**Near Term**
Conserve key biogenic habitats	
Conserve areas of high species and/or habitat diversity	
Conserve ecologically important geological features and enduring/recurring oceanographic features	
Conserve and manage critical habitat of threatened and endangered species	
Conserve and manage unique or rare species, habitats and associated communities	**Mid Term**
Conserve and manage key areas for migratory species	
Conserve linked areas important to life histories	**Long Term**
Conserve key areas that provide compatible opportunities for education and research	

Goal 2: Advance comprehensive conservation and management of cultural resources that reflect the nation's maritime history and traditional cultural connections to the sea, as well as the uses and values they provide to this and future generations through ecosystem-based MPA approaches.	
Priority Conservation Objectives for Goal 2	
Conserve key cultural and historic resources listed on the National Register of Historic Places (NRHP)	**Near Term**
Conserve key cultural historic resources determined eligible for the NRHP or listed on a State Register	
Conserve key cultural sites that are paramount to a culture's identity and/or survival	
Conserve key cultural and historic sites that may be threatened	**Mid Term**
Conserve key cultural and historic sites that can be utilized for heritage tourism	
Conserve key cultural and historic sites that are under-represented	**Long Term**

Goal 3: Advance comprehensive conservation and management of the nation's renewable living resources and their habitats, including, but not limited to, spawning, mating, and nursery grounds, and areas established to minimize incidental by-catch of species, that are important to the nation's social, economic, and cultural well-being through ecosystem-based MPA approaches.	
Priority Conservation Objectives for Goal 3	
Conserve and manage key reproduction areas, including larval sources and nursery grounds	**Near Term**
Conserve key areas that sustain or restore high priority fishing grounds	
Conserve and manage key areas for maintaining natural age/sex structure of important harvestable species	**Mid Term**
Conserve key foraging grounds	
Conserve and manage key areas that mitigate the impacts of bycatch	
Conserve key areas that provide compatible opportunities for education and research	**Long Term**

Achievement or completion of each conservation objective will include the following activities:

1. identification of existing MPAs that contribute to that objective and nomination of those MPAs to the national system, and
2. identification of associated conservation gaps in the national system.

Specific processes for each of these activities are described in later sections of this document. Nonetheless, in practicality it is unlikely that all objectives within the same timeframe designation (e.g., near term) will be able to be addressed simultaneously due to varying complexity of implementation and available staffing and funding resources.

To ensure that partners and stakeholders are kept informed of the status of building the national system, the MPA Center will publish, on an as needed and sequential basis, 'priorities announcements' that list the specific subsets of the near-term, mid-term, and long-term national system conservation objectives for each goal as targets for building the national system.

C. National System Design and Implementation Principles

The following principles are intended to guide the decisions and actions of agencies and stakeholders in building and implementing an effective national system. These principles have been adapted from recommendations of the MPA FAC and the World Conservation Union (IUCN) report, "Establishing networks of marine protected areas: A guide for developing national and regional capacity for building MPA networks" (WCPA/IUCN, 2007).

National System Design Principles

Design principles will be used to guide the identification of priority conservation gaps in the national system (Section V (D)) and regional MPA planning (Sections VI (A) (2)).

1. **Prioritized resource conservation targets** – focus first on conservation objectives that are of highest priority based on significance and urgency, availability of existing scientific and other data, and ability for objectives to result in action in the near term (< 3 years).
2. **Representativeness**:
   a. geographically representative – represents the range of geographic regions of the nation.
   b. ecologically representative – represents the range of marine and coastal biological diversity (from genes to ecosystems) and associated physical environment within the region or nation.
   c. culturally and/or historically representative – represents the range of cultural and/or historic resources and values of a particular ecosystem or region, or the nation.
   d. levels of government – includes areas managed by federal, state, tribal, and local governments, and communities.
3. **Replication** – Includes multiple sites to ensure continued representation in the face of harmful impacts.
4. **Precautionary design** – Decisions are based on the best information currently available from natural science, social science, customary and local knowledge, and other information, rather than delaying the process to await more and better information. Where information is limited, decisions should reflect a precautionary approach.
5. **Resilience** – Designed to maintain ecosystems' natural states and to absorb shocks, particularly in the face of large-scale and long-term changes (such as climate change).
6. **Viability** – Inclusion of self-sustaining, geographically dispersed component sites of sufficient extent to ensure population persistence through natural cycles of variation.
7. **Connectivity** – Maximize and enhance the linkages among individual MPAs, groups of MPAs within a given eco-region, or MPA networks in the same and/or different regions.

National System Planning and Implementation Principles

Planning and implementation principles will guide national system efforts under Section VI, "Implementing the national system," including regional coordination and MPA planning.

1. **Cooperation and coordination** – Fosters cooperation and coordination among federal, state, tribal, local, and other management entities to reduce administrative costs, promote efficiency, and effectively utilize existing management infrastructure.
2. **National scope, ecosystem and regional scale** – Embraces regional and ecosystem approaches to planning, participation, and implementation. Provides a mechanism for coordinating across regions, nationally, and where appropriate, internationally.
3. **Adaptive management** – Employs a systematic process for continually improving [national system] management policies and practices by learning from the outcomes of operational programs. Its most effective form—'active' adaptive management—employs management programs that are designed to experimentally compare selected policies or practices, by evaluating alternative hypotheses about the system being managed. [5]
4. **Monitoring and assessment** – Promotes sound monitoring and evaluation at the site and system levels to assess management effectiveness, relying on established evaluation processes and methodologies, where possible.

[5] (British Columbia Forest Service, <http://www.for.gov.bc.ca/hfp/amhome/Amdefs.htm>)

5. **Compliance and enforcement** – Promotes effective compliance with and enforcement of MPA regulations through design recommendations for MPAs and networks, capacity building, public education and other mechanisms**.**
6. **Balanced stakeholder involvement** – Provides meaningful opportunities for input from and participation by the nation's MPA stakeholders, including the general public.
7. **Active outreach and education** – Raises awareness and understanding of MPAs and stewardship of marine resources.
8. **On-site and off-site influences and impacts** – Recognizes and seeks appropriate mechanisms to address both on-site and off-site influences, including impacts to coastal and marine resources from land-based activities.
9. **Respecting local and indigenous values** – Considers and addresses local values, including those of indigenous cultures.
10. **Appropriate access and compatible uses** – Provides opportunities for appropriate access to and/or compatible use of marine resources consistent with conservation goals and objectives.

D. MPA Eligibility Criteria

To be eligible for nomination to the national system, existing MPAs must meet the following three (four for cultural sites) criteria, shown in Figure 1 and described in more detail below:

1. Meet the definitional criteria of an MPA, including each of its key terms – area, marine environment, reserved, lasting, and protection.
2. Support at least one priority goal and conservation objective of the national system.
3. Have a management plan.
4. Cultural heritage MPAs also must conform to criteria for the National Register of Historic Places.

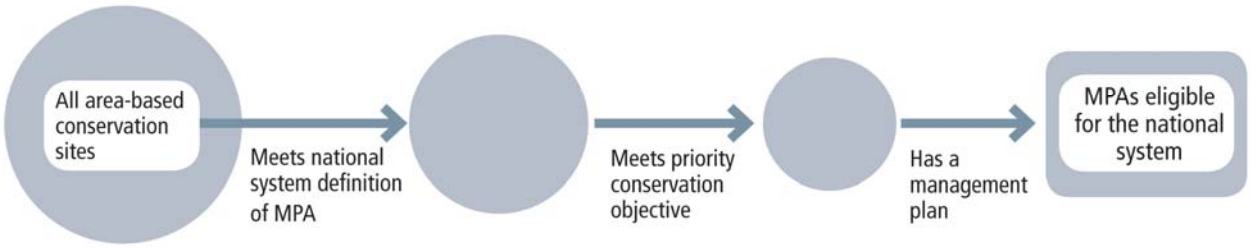

Figure 1. Eligibility Criteria for the National System

Additional sites not meeting the management plan criterion can be evaluated for eligibility to be nominated to the system on a case-by-case basis based on their ability to fill gaps in national system coverage of the priority conservation objectives and design principles described in Sections IV (B) and (C), respectively. To the extent practicable, the MPA Center intends to assist otherwise qualified sites that do not meet the management plan criteria to develop or strengthen management plans.

Definitions of MPA and its Key Terms
With the goal of standardizing the term "marine protected area" for the purposes of the national system, the Order defines an "MPA" as, "Any **area** of the **marine environmen**t that has been **reserved** by Federal, State, territorial, tribal or local laws or regulations to provide **lasting protection** for part or all of the natural and cultural resources therein."

Without further clarification, the key terms of "area," "marine environment," "reserved," "lasting," and "protection" found in the MPA definition are subject to a range of interpretations and lead to an uncertain scope for the national system. The definitions of key terms for "MPA" listed below were guided by recommendations from stakeholders, including the MPA FAC, as well as the analysis of existing place-based conservation efforts (Table 2).

For the purposes of the national system, the key terms of the MPA definition are defined as follows:

Table 2. Definitions of Key Terms

Key Term	Definition
Area	Must have legally defined geographical boundaries, and may be of any size, except that the site must be a subset of the U.S. federal, state, local or tribal marine environment in which it is located. Application of this criterion would exclude, for example, generic broad-based resource management authorities without specific locations and areas whose boundaries change over time based on species presence. The area must be one over which the U.S. has jurisdiction, consistent with international law.
Marine environment	Must be: (a) ocean or coastal waters (note: coastal waters may include intertidal areas, bays or estuaries); (b) an area of the Great Lakes or their connecting waters; (c) an area of submerged lands under ocean or coastal waters or the Great Lakes or their connecting waters; or (d) a combination of the above. The term ''intertidal'' is understood to mean the shore zone between the mean low water and mean high water marks. An MPA may be a marine component part of a larger site that includes uplands. However, the terrestrial portion is not considered an MPA. For mapping purposes, an MPA may show an associated terrestrial protected area. For the purposes of the national system, NOAA and DOI intend to use the following definition for the term ''estuary'': ''Part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage, and extending upstream to where ocean derived salts measure less than 0.5 parts per thousand during the period of average annual low flow.'' Application of this criterion would exclude, for example, strictly freshwater sites outside the Great Lakes region that contain marine species at certain seasons or life history stages unless that site is a component of a larger, multiunit MPA. Upon request, the agencies will work with individual federal, state and tribal MPAs and programs to examine unique conditions which may affect applicability of the term ''estuary'' or "coastal waters" for sites that have national or regional significance or representativeness. Estuarine-like sites on tributaries of the Great Lakes will be considered for inclusion if they are located within the eight-digit USGS cataloging unit adjacent to a Great Lake or its connecting waters.
Reserved	Must be established by and currently subject to federal, state, local, or tribal law or regulation. Application of this criterion would exclude, for example, privately created or maintained marine sites.

Lasting	For natural heritage and cultural heritage MPAs, the site must be established with the intent at the time of designation to provide permanent protection. This definition recognizes that subsequent to establishment, MPA designation and level of protection may change for various reasons, including natural disasters that may destroy or alter resources, or changes in societal values. Should any of these changes occur, the status of the MPA relative to the national system could be re-evaluated. Sites and/or protections that must have a specific legislative or other administrative action to be decommissioned shall be considered to have been established with the intent to provide permanent protection. For example this would include sites that include a requirement for periodic renewal contingent on evaluation of effectiveness, with no specified expiration date. For sustainable production MPAs, the site must be established with the intent at the time of designation to provide, at a minimum, the duration of protection necessary to achieve the mandated long-term sustainable production objectives for which the site was established. For all MPAs, the site must provide the same level and type of protection at a fixed location and fixed and regular period of any duration during a year.
Protection	Must have existing laws or regulations that are designed and applied to afford the site with increased protection for part or all of the natural and submerged cultural resources therein for the purpose of maintaining or enhancing the long-term conservation of these resources, beyond any general protections that apply outside the site. Application of this criterion would exclude restricted areas that are established for purposes other than conservation. For example, the term would not include areas closed for navigational safety, areas closed to safeguard modern man-made structures (e.g., submarine cable no-anchor zones), polluted shellfish-bed closure areas, areas closed to avoid fishing gear conflicts, and areas subject to area-based regulations that are established solely to limit fisheries by quota management or to facilitate enforcement.

Priority Goal and Objective of the National System

An MPA's conservation purpose must specifically contribute to at least one of the priority goals and objectives published by the MPA Center as current conservation targets, as described in Section IV (B) above, in order to be included in the national system.

Management Plan Criteria

In order to be eligible for nomination to the national system, an MPA must have a management plan that:

Has been developed at one of the following scales:

- a site-specific MPA management plan,
- part of a larger MPA programmatic management plan,
- component of a broader, non-MPA programmatic management plan (e.g., fishery management plan or species recovery plan), or
- a verbal or written community agreement[6].

[6] Given the unique nature of community agreements, whether verbal or written, the requirement for these management agreements to include conservation goals and monitoring and evaluation components may be met through traditional or science-based approaches.

Includes both of the following components:

- specified conservation goals, and
- process or requirement for monitoring and evaluation of goals.

National Register of Historic Resources Criteria

Cultural resources can include archeological resources, cultural landscapes, and structures as well as ethnographic resources with tribal or traditional cultural meaning, value and use. Given the cultural resource management community's widespread acknowledgement of the standards developed by the National Park Service for inclusion of a cultural resource in the National Register of Historical Places (NRHP), the national system will integrate core elements of those standards into its criteria for MPAs with cultural marine resources. As such, the cultural marine resources within those MPAs must be historic, defined as at least 50 years of age, unless otherwise determined to be unique to the nation's maritime history or traditional connections to the sea as defined by the NRHP. In addition the resources must also meet the following NRHP evaluation criteria:

"The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of significant persons in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded or may be likely to yield, information important in history or prehistory."

E. MPA Categories

The set of national system MPA categories listed below in Table 3 are intended to provide a limited set of user-friendly terms for communicating generally about the purpose of and level of protection of MPAs that become a part of the national system[7]. In addition, these categories will also be useful for:

1. partitioning the national system into manageably sized groups of comparable sites to ease identification of shared technical or other assistance;

2. packaging sites based on comparable conservation objectives and levels of protection to facilitate identification of gaps in conservation; and

3. providing a logical framework for organizing and monitoring how sites added to the national system contribute to the system's conservation objectives.

[7] A more detailed categorization scheme useful for more in-depth analysis is provided at MPA.gov website.

The MPA Center will work with the respective managing agency(ies) to determine the most appropriate category for the MPAs as they become a part of the national system. This categorization will not in any way supersede the designated name or title of the MPA, as established by law.

Table 3. National System MPA Categories

National System Purpose	MPA Category	Protection and Use Sub-category*	Management Goal(s)
Conserve Marine Heritage	Marine Natural Heritage Areas	Natural Heritage Conservation Areas	**Conserve or restore significant marine natural resources, habitats, and processes, and the ecosystem values, services, and uses they provide to present and future generations.**
		Natural Heritage Reserve Areas	Strongly protect significant marine natural resources, habitats, and processes, and the ecosystem values, services, and uses they provide to present and future generations.
	Marine Cultural Heritage Areas	Cultural Heritage Conservation Areas	**Conserve marine cultural resources and provide compatible opportunities and uses for present and future generations.**
		Cultural Heritage Reserve Areas	Strongly protect cultural resources and provide compatible spiritual, traditional, scientific, educational, and recreational opportunities and uses for present and future generations.
	Marine Natural and Cultural Heritage Areas	Natural and Cultural Heritage Conservation Areas	**Conserve or restore significant marine natural and cultural resources, habitats, and processes, and the ecosystem values, services, and uses they provide to present and future generations.**
		Natural and Cultural Heritage Reserve Areas	Strongly protect significant marine natural and cultural resources, habitats, and processes, and the ecosystem values, services, and uses they provide to present and future generations.
Sustain Marine Production	Marine Sustainable Production Areas	Sustainable Production Conservation Areas	**Achieve the sustainable harvest and/or restoration of marine species and the social, cultural, and economic values and services they provide to present and future generations.**
		Sustainable Production Reserve Areas	Strongly protect important biological, geological, or ecosystem features needed to achieve the sustainable harvest and/or restoration of marine species and the social, cultural, and economic values and services they provide to present and future generations.

Conservation Areas: Multiple uses allowed; however, uses and activities may be restricted or zoned, and access limited as necessary to meet site management goals.
Reserve Areas: No extractive uses allowed, except permitted scientific and educational uses; destructive or disruptive activities limited; other uses and activities may be restricted or zoned, and access limited, as necessary to meet site management goals.

V. Building the National System of MPAs

A. Summary and Sequence

Building the national system will involve two major sets of activities:

1. the identification, nomination, and inclusion of existing MPAs in the national system and on the official List of MPAs, and
2. the identification of national system conservation gaps relative to the conservation objectives and national system design criteria outlined in Sections IV (B) and (D) above.

Given the magnitude of the task of developing the national system, the MPA Center will follow an iterative process to build the system gradually over time. The sequence of the iterative process for two major sets of national system building activities is as follows (a more thorough description of each activity can be found in subsequent subsections):

1. As described in Section IV (B)(1), the MPA Center will publish, on an as needed and sequential basis, subsets of the near-term, mid-term, and long-term national system conservation objectives for each goal to guide the identification of existing MPAs that are eligible for nomination to the national system, as well as the analysis and identification of conservation gaps.
2. The MPA Center will lead a nation-wide nomination process for eligible existing MPAs that contribute to the subset of targeted conservation objectives, and include those MPAs in the national system that are successfully nominated and accepted.
3. The MPA Center will lead a collaborative region-by-region process to identify conservation gaps relative to the subset of targeted conservation objectives and national system design criteria. Conservation gaps will be used to inform the development of recommendations for new MPAs through regional MPA planning described in Section VI (A), and can also be used by agencies and stakeholders to guide their efforts to establish new MPAs.
4. Upon completion of the nation-wide nomination process and region-by-region conservation gap identification for the targeted subset of conservation objectives, or at such other time that resources and capabilities allow, the MPA Center will publish the next iterative set of conservation objectives to serve as targets for building the national system.

B. Nomination Process for Existing MPAs

The process for nominating and including eligible MPAs into the national system is as follows (see Figure 2 for summary):

1. The MPA Center will review sites in the U.S. Marine Protected Areas Inventory and identify and publish the set of sites that meet the MPA eligibility criteria outlined in Section IV (D), within the scope of the subset of conservation objectives being targeted for completion at that time. The MPA Inventory (see www.mpa.gov) is a refinement of the earlier Marine Managed Areas Inventory, which was a broader collection of place-based management areas in U.S. waters.
2. The MPA Center will send the managing entity or entities[8] for those sites found to be eligible a letter of invitation to nominate, including the rationale for eligibility.
3. The managing entity or entities will be requested to consider and make nominations of identified sites for inclusion in the national system.

   The managing entity or entities also may provide a brief justification and nomination for: a) unsolicited sites believed to meet the requirements for entry into the national system, or b) other sites that do not meet the management plan eligibility criterion but are deemed to be a priority for inclusion based on their ability to fill gaps in national system coverage of the priority conservation objectives and design principles.
4. The MPA Center will review the set of nominated sites to ensure that nominations for unsolicited sites are justified adequately.
5. The MPA Center will notify the public, via the *Federal Register* and other means, of the set of sites nominated for inclusion in the national system, and provide the opportunity to comment on the eligibility of nominated sites relative to the eligibility criteria and any additional justification.
6. The MPA Center will receive, evaluate and forward public comment to the relevant managing entity or entities, which will reaffirm or withdraw (in writing to the MPA Center) the nomination based on public comment received and any other factors deemed relevant.
7. The MPA Center will review the final determination for each nomination, consult as necessary with the managing entity or entities should there be any discrepancies, and accept mutually agreed upon MPAs into the national system.
8. MPAs that are accepted into the national system will be listed in the official List of MPAs (see below) comprising the national system, and made available to the public via the Federal Register and other means.

[8] In most cases, management authority for an MPA lies with one agency or program; however, in certain instances, such as the federal/state National Estuarine Research Reserve System and state/tribe co-management arrangements, authority is formally shared or split among two or more entities. Similarly, Federal Fishery Management Councils have a unique role with the National Marine Fisheries Service in the process for establishing federal fishery management zones and federal fisheries habitat conservation zones. In these cases where there are explicit agreements and/or legislation governing shared management authority or other formal relationships, the multiple managing entities shall be consulted throughout the nomination process.

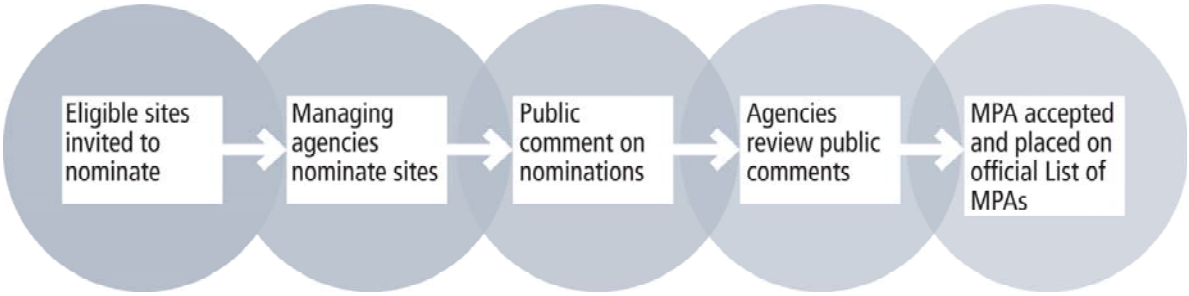

Figure 2. Summary of Nomination Process

Where non-governmental stakeholders, including the general public, may have an interest in the nomination of certain MPAs beyond the public comment process describe in Section V above, they are encouraged to contact the respective managing entity or entities to share their perspectives about nomination. Similarly, where government agencies have an interest in the nomination of eligible MPAs for which they do not have management authority, they are encouraged to consult with the respective managing entity or entities.

C. The Official List of MPAs

1. Adding MPAs to the List and National System

Pursuant to Section 4(d) of the Order, and to ensure that agencies, organizations, and the general public are aware of the MPAs that make up the national system, the MPA Center will maintain a List of MPAs. The List of MPAs will be the official inventory of all MPAs that have been formally included in and recognized as part of the national system of MPAs under Section V (B), above. In addition, MPAs on the List of MPAs are those sites that are the subject of Section 5 of the Order, "Agency Responsibilities," as described in Section VI (D) of this document.

The List will include the following information for each national system MPA:

a) name,
b) location,
c) national system MPA category,
d) boundaries,
e) resources protected,
f) authorizing legislation,
g) regulations,
h) managing authority or program,
i) name of point of contact, and
j) relevant contact information

The MPA Center will regularly publish an updated, summary version of the List of MPAs in the *Federal Register*, and will make it available to the public at <http://www.mpa.gov> or by request.

2. Removing MPAs from the List and National System

MPA sites or systems that have been included in the List of MPAs may be removed at any time by written request of the managing agency(ies) or the MPA Center for reasons including:

1. the MPA ceases to exist (e.g., the legal authority or regulations expire);
2. the MPA no longer meets the national system MPA eligibility or other relevant criteria;
3. the managing authority requests removal; or
4. other circumstances pending review.

All requests from managing agencies or the MPA Center to remove an MPA from the national system must be made in writing, will become part of the public record, and will be published at <http://www.mpa.gov> and in the *Federal Register* for comment. Upon receipt by the MPA Center of a request to remove an MPA from the national system, the respective managing agency(ies) and the MPA Center will enter into a dialogue on the proposal. Any comments received from the public relating to the removal of an MPA from the national system will be forwarded to the managing agency(ies) for its consideration in making its final determination to have the site removed from the national system. Upon completion of all obligations by the respective managing agency(ies), the MPA will be removed from the List of MPAs and all information referencing the site will be removed from national system materials and archived in the national system information on the website.

D. Identifying National System Conservation Gaps

The nation's suite of existing MPAs is a significant contribution to the building of a comprehensive and representative national system. The critical next step toward achieving the national system's conservation objectives is the identification of conservation gaps, as called for in Section 4 (a) of the Order, to inform the efficient, effective establishment of new MPAs or the enhancement of existing MPAs. Conservation gaps identified herein can be used by existing federal, state, tribal, and local MPA agencies and others to guide their future efforts to establish new or strengthen existing MPAs using their independent authorities and processes. In addition, the gaps identified through this process will be used to inform regional planning and collaboration that may ensue as described under Section VI (A) below.

This section outlines the process for identifying gaps in the national system. The process will be implemented iteratively, relative to targeted national system conservation objectives, and on region by region bases as described below. Conservation gaps in the national system may exist in a number of forms and can be generally described as:

Representation gaps: where a particular species, habitat, cultural resource, or ecosystem is either un-represented or under-represented in the national system relative to ensuring lasting conservation or sustainable production.

Ecological gaps: where representation of a particular species, habitat, or ecosystem in the national system is of inadequate ecological condition, or not protected respective to its movements or specific conditions necessary for lasting conservation or sustainable production.

Management gaps: where the management regimes (management objectives or governance types) of MPAs in the national system do not fully provide for lasting conservation or sustainable production of a particular species, habitat, cultural resource, or ecosystem.[9]

Efforts to identify conservation gaps will include the collection and analysis of the best readily available scientific information and analyses, and the subsequent identification of marine natural and cultural resources, habitats, and ecosystems, and corresponding coarse-scale areas found in need of enhanced and/or new protection. Gaps will be assessed relative to fully achieving the national system conservation objectives and design principles outlined in Sections IV (B) and (C), respectively.

Gap identification efforts will be focused at the regional scale, and will be collaborative, involving MPA-related and other agencies at various levels of government, FMCs, and other organizations and institutions in synthesizing and analyzing existing scientific information and established conservation priorities. The effort to identify conservation gaps will include opportunities for review and comment by the public, the MPA FAC, relevant federal agencies, state and tribal governments, and the national system Steering Committee (Steering Committee) described in Section VI (B).

The MPA Center also will work with existing or incipient regional marine entities and initiatives to coordinate with their broad management efforts, as appropriate. Efforts to identify gaps also will consider and include relevant international participation and linkages. The effort aims to provide government agencies with a program-neutral opportunity for collaborative assessment and planning, while ensuring that stakeholders are both informed and involved.

The MPA Center will work with diverse partners, as appropriate, through the following process to identify gaps in fully achieving the national system's conservation objectives:

1. Publish, on an as needed and sequential basis, subsets of the near-term, mid-term, and long-term national system conservation objectives listed in Section IV (B) as iterative targets for conservation gap identification. The same published subsets of conservation objectives also serve to guide iterative identification of eligible existing MPAs for nomination to the national system.
2. Aggregate, map, and describe the existing data and analysis about species, habitats, cultural resources, ecosystems or other pertinent information on regional bases around the nation relative to the targeted national system conservation objectives.
3. Map and describe, on regional bases around the nation, the location and management attributes of existing MPAs that contribute to achieving the targeted national system conservation objectives.
4. Integrate species, habitat, cultural resource, and ecosystem analysis, and location and management attributes of existing MPAs to identify, map, and describe national system conservation gaps relative to targeted conservation objectives and design principles.

[9] Adapted from: Nigel Dudley and Jeffrey Parish (2006). Closing the Gap. Creating Ecologically Representative Protected Area Systems: A Guide to Conducting the Gap Assessments of Protected Areas Systems for the Convention on Biological Diversity. Secretariat of the Convention on Biological Diversity. Montreal, Technical Series no. 24, vi + 108 pages

5. Provide identified gaps and background information to the public for comment.
6. Seek input on identified gaps from federal agencies, states, and Tribal leaders with management authority in the corresponding region.
7. Seek input on identified gaps from the Steering Committee.
8. Provide identified gaps, background information, and a summary of all public and Steering Committee comments received to the MPA FAC for consideration and development of prioritized recommendations to DOC and DOI.
9. Upon consideration of all input and recommendations, the MPA Center will publish prioritized national system conservation gaps and corresponding descriptive information for use by agencies and stakeholders. Information about the conservation gaps identified will be maintained on the <http://www.mpa.gov> website.

Finally, while the publication of these identified conservation gaps is a major step toward building a comprehensive national system, significant additional evaluation of these gaps and other information is necessary prior to any resulting establishment of new MPAs or change to existing MPAs' governance. Specifically, agencies and stakeholders will need to work together under the auspices of appropriate MPA authorities to evaluate these gaps and the related societal and economic considerations. Moreover, establishment of new MPAs or changes to the governance of existing MPAs must follow relevant processes under established authorities.

Through the national system, the MPA Center can serve as a resource to assist agencies and stakeholders with such analyses and regional planning processes, as described in Section VI (A) below. Similarly, identified gaps will be considered by the MPA Center and the Steering Committee in prioritizing national system science and stewardship actions.

E. Establishing New National System MPAs

Although the Framework lays out the processes for identifying conservation gaps in the national system (see Section V (D)) and developing recommendations for new or enhanced MPAs through collaborative ecosystem-based MPA planning (see Section VI (A)(2)), neither the Order nor the Framework provides authority to designate or establish new MPAs, or alter protections afforded by existing MPAs.

These national system processes are intended, however, to offer a more collaborative, systematic and comprehensive approach to MPA planning than currently exists. As such, any resulting recommendations for new or enhanced MPAs that stem from these processes offer agencies with MPA management authority valuable guidance for taking independent or cooperative action to meet their mandates and requirements for establishing and/or managing MPAs. Moreover, such processes and recommendations offer stakeholders valuable opportunities and information to meaningfully engage with MPA decision-making efforts.

New MPAs that may eventually be established based upon these national system recommendations would subsequently be considered for inclusion in the national system pursuant to the eligibility criteria and nomination process outlined above. Stakeholder participation in the designation process for new MPAs is unchanged by the national system, and occurs as specified through the required public consultation processes associated with the authorized designation process.

VI. Implementing the National System of MPAs

Over time, as MPA sites, programs, and systems are added to the national system, efforts to implement the national system - both regionally and nationally – will be initiated. A major emphasis of the MPA Center will be to facilitate and support collaborative implementation efforts with participating MPA sites and programs, pending available resources. The timing of the implementation efforts described below may be sequential, simultaneous, or otherwise, depending on resources available and the priorities of national system partners. National system implementation components, guided by the national system's planning and implementation principles described in Section IV (C), include:

- *Enhancing regional coordination and collaboration* – formalizing new and/or supporting existing regional mechanisms to provide for effective, efficient coordination and collaboration among participating MPA sites, systems, and programs.
    - *Improving MPA stewardship and effectiveness* – identifying and prioritizing shared needs for improvements in MPA science, management, and stewardship at regional and national levels and catalyzing partnerships and action to address identified priorities.
    - *Regional MPA planning* – developing and applying the natural and social science information, decision-making tools, and stakeholder engagement processes to collaboratively evaluate conservation gaps identified in the national system and make recommendations about the need for new and/or enhanced MPAs
- *National and international coordination* – establishing and implementing a National System Steering Committee to serve to link across regions where resource conservation and MPA planning and management issues span regional boundaries, and identifying and pursuing international MPA linkages to the national system.
- *Evaluating national system effectiveness* – providing technical and scientific support for fostering sound monitoring and evaluation programs at the participating MPA site or system level, as well as development of a set of standards and protocols for assessing broader national system effectiveness.
- *Federal agency responsibilities to avoid harm* – providing guidance regarding Section 5 of the Order, which requires federal agencies to "avoid harm" to the natural and cultural resources protected by MPAs that become part of the national system.
- *Tracking and reporting* – maintaining the MPA.gov website, and producing a biennial State of the National System report, and other mechanisms for communicating national system activities, progress and plans.

A. Enhancing Regional Coordination and Collaboration

Within the national system, effective regional coordination and collaboration is critical for sharing information and experiences, identifying common priorities and collaborative solutions for enhancing the effectiveness of existing sites, and improving planning and decision-making for new MPAs. In the same way, effective regional collaboration must also include making necessary linkages to other marine management initiatives and collaboration mechanisms. For example, the federal Seamless Network initiative, the developing U.S. Integrated Ocean Observing System, Federal Fishery Management Councils, Inter-State Fishery Management Commissions, and ongoing or planned regional ocean or Great Lakes initiatives by state governors may offer opportunities for efficiently strengthening MPA collaboration.

The national system will use U.S. **large marine ecosystems** (LME) as the broadest framework for regional planning and collaboration, recognizing that certain of these regions do not efficiently or fully encompass the political regions of the U.S. that would be necessary for effective collaboration (Figure 3). For example, the three LMEs associated with the state and federal waters off Alaska can be combined for the purposes of regional MPA collaboration, as could the U.S. waters of the Caribbean and Gulf of Mexico. Nonetheless, these regions are intended to serve as the broadest framework for regional collaboration, recognizing that other established regions whether biophysical (e.g., biogeographic regions) or political (e.g., FMC regions) may be nested within LMEs and may serve as more appropriate scales for MPA planning and collaboration.

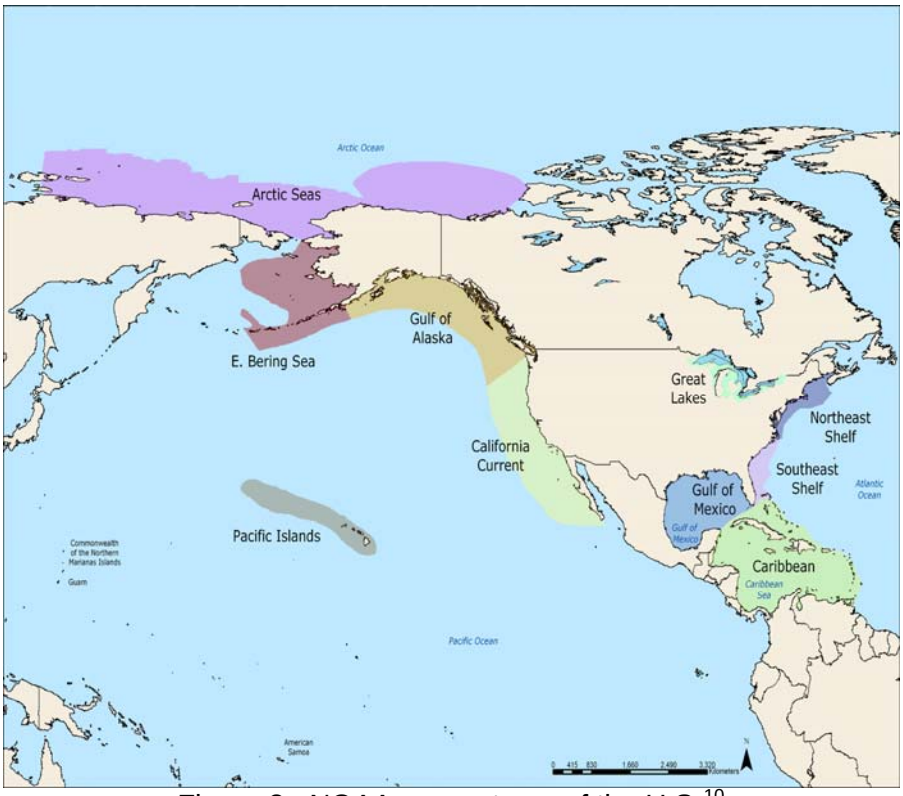

Figure 3. NOAA ecosystems of the U.S.[10]

The national system's regional collaboration framework will be built at the broadest level around the following regions, each encompassing state and federal waters as relevant:

- Alaska: Gulf of Alaska, East Bering Sea, and Arctic Seas large marine ecosystems
- California Current: California, Oregon, Washington
- Great Lakes: Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, and New York
- Gulf of Mexico and Caribbean: Texas, Louisiana, Mississippi, Alabama, Florida, U.S. Virgin Islands, Puerto Rico, and Navassa Island

[10] Burgess, J., et al. 2005. NOAA's Ecosystem Approach to Management. NOAA Ecosystem Goal Team. Silver Spring, MD.

- Northeast: New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine
- Pacific Islands: Hawai'i, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Pacific Remote Insular Areas (Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Wake Island, and Palmyra Atoll)
- Southeast U.S: Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, and New Jersey

A variety of approaches exist for enhancing regional MPA coordination and collaboration. The appropriate mechanism for any particular region depends in large part on its biophysical and political characteristics, and the specific goals for which the coordination and collaboration are being initiated. Through the national system, the MPA Center will work with all participating state, tribal, and federal MPA sites and programs, and existing regional entities in each region to establish and/or formalize an appropriate regional MPA coordination and collaboration mechanism, such as a regional MPA working group, forum, or dialogue.

In doing so, the MPA Center will consult with participating agencies and entities in the region to determine the most suitable type (e.g., informal, formal) of coordination and collaboration and the appropriate regional scale. This includes identifying existing regional MPA and related marine coordination initiatives and determining efficient ways to complement or integrate with those efforts, while ensuring opportunities for all national system partners to be represented.

The facilitation of formalized regional coordination and collaboration mechanisms for the national system is intended to provide a forum for MPA agencies to work together to:

1. develop regional MPA effectiveness and stewardship strategies that identify and prioritize shared needs for improving the effectiveness of existing MPAs in the region (see Section VI (A)(1) below);
2. catalyze collaborative initiatives and projects to address identified science and stewardship needs;
3. further evaluate identified national system conservation gaps, undertake collaborative, ecosystem-based MPA planning, solicit stakeholder input, and make specific recommendations about the need for the establishment of new MPAs (see Section VI (A)(2) below);
4. facilitate continued and new managerial collaboration among MPAs across regional, national, and international boundaries, to promote consistent approaches to monitoring, enforcement, emergency response, threat abatement, and coordination with other countries and international organizations (such as through trans-boundary MPAs), and ensure compliance with international law;
5. coordinate ecosystem and/or regional input to the national system and recommend annual and longer term regional science and other priorities based on shared MPA needs across the region;
6. develop informal and formal partnerships to achieve economies of scale. For instance, arrange for the sharing of technical and financial resources for monitoring, surveillance, enforcement, staff training, etc.; and
7. develop and implement strategies for engaging and informing stakeholders about regional MPA planning, effectiveness and stewardship activities.

1. Improving MPA Stewardship, Science and Effectiveness

A significant purpose of the Order is to "strengthen the management, protection, and conservation of existing [MPAs]…" As such, a major emphasis of the national system is to provide support for the shared science, technical, education, and other priority stewardship needs of partner MPA programs in order to enhance the national system's effectiveness. With this in mind, collaborative efforts should work to enhance the effectiveness of and provide benefits to existing efforts of MPA programs without creating additional responsibilities that detract from the important work of partners in meeting their existing programmatic and other requirements.

Formalizing regional coordination mechanisms via the national system offers a unique forum for collaboration to improve the effectiveness and stewardship of existing MPAs by identifying common needs across MPA programs. To this end, the MPA Center will consult with participating federal, state, and tribal agencies through formalized regional MPA coordination and collaboration forums to develop regional MPA Stewardship, Science and Effectiveness Strategies (Strategies). These Strategies will identify, inventory, and prioritize shared science, education, research, management, and other needs for improving MPA stewardship, science and effectiveness. Wherever possible, these Strategies shall incorporate or build upon relevant priorities previously identified through other mechanisms so as to avoid duplicative efforts.

The development of Strategies is intended to provide an efficient mechanism for the MPA Center to work with participating MPA sites and programs to gather information that will serve as the basis for catalyzing collaborative actions to address shared priorities. Moreover, the priorities identified in the regional Strategies will be aggregated by the MPA Center into a national set of priorities and used to catalyze large-scale projects and initiatives.

The following are examples of the types of priority science and stewardship issues that may be identified and addressed through the development of regional Strategies and subsequent collaborative actions among MPA programs to improve MPA effectiveness:

1. Enhancing MPA management capacity
    a. management plan development and review;
    b. enforcement and compliance practices;
    c. best practices for meaningful stakeholder involvement; and
    d. sustainable financing mechanisms.
2. Improving MPA science and research
    a. investigating regional, ecosystem, and site connectivity;
    b. developing science-based tools for MPA site, network, and system design;
    c. building collaborative strategies for establishing biophysical, social, and economic baselines for MPAs and monitoring trends in these conditions; and
    d. examining the effects of invasive species on MPAs.
3. Promoting outreach and education
    a. developing educational programs;
    b. improving awareness and understanding of the importance of marine resources and the role of MPAs in marine management; and
    c. improving public stewardship of marine resources through volunteer programs and other efforts.

4. Improving the evaluation of MPA effectiveness
    a. training and technical assistance on developing relevant indicators and protocols for monitoring and evaluating management effectiveness for MPAs and networks of MPAs;
    b. identifying consistent indicators for examining marine habitat and resource recovery and social and economic conditions associated with MPAs; and
    c. synthesizing recovery trajectories for marine resources to aid managers, stakeholders, and the public in interpreting monitoring results and understanding habitat restoration and MPA recovery.

Possible mechanisms to support collaborative action on priority MPA effectiveness and stewardship topics, pending availability of funds, could include:

1. training and workshops;
2. direct technical assistance and tools;
3. contractual or grant funding;
4. best practices or technical publications;
5. sharing of knowledge and experience across MPA sites and programs;
6. clearinghouse for research on MPA issues;
7. targeted research;
8. facilitation of linkages with international MPA programs and activities; and
9. other mechanisms as identified.

2. Regional MPA Planning

The establishment or enhancement of regional MPA coordination forums via the national system offers an opportunity for agencies and stakeholders to look beyond their individual jurisdictions, mandates, and interests, and consider regional and/or ecosystem-based approaches to MPA planning.

To this end, the MPA Center will work with regional, national, and, where applicable, international partners, where interested, to develop and apply the natural and social science information, decision-making tools, and stakeholder engagement processes to collaboratively evaluate conservation gaps identified in the national system and make recommendations about the need for new and/or enhanced MPAs.

Such an ecosystem-based MPA planning effort could include, but is not limited to, the following critical planning steps or components:

1. An evaluation and synthesis of national system design principles and conservation gaps and other regional and/or programmatic marine conservation targets, in order to more comprehensively establish regional conservation objectives to guide ecosystem-based planning.
2. The characterization of natural and cultural marine resources, including the important natural resources, habitats, ecosystems, ecological processes, and cultural resources in the region.

3. An assessment of human uses and their impacts, including the documentation and characterization of the patterns, intensity, and significance of human uses; existing governance framework; and assessments of conflicts, compatibilities, and potential impacts of human uses on marine ecosystems.
4. The development and use of decision-tools to identify and recommend areas in need of additional protection.
5. Facilitation of stakeholder outreach and engagement processes to ensure the public and other stakeholders are informed of planning activities and have an opportunity to provide input into the decision-making process.
6. Development of recommendations for new or strengthened MPAs to meet regional and national priority conservation objectives, and recommended mechanisms and processes for relevant MPA authorities in establishing new MPAs or otherwise implementing recommended actions.

B. National and International Coordination

National Coordination

In addition to enhancing regional coordination of MPAs, a corresponding national level effort is needed. Such an effort will represent and promote the priorities and issues of the various ecosystems and regions that make up the nation, as well as look more broadly at important national and international trends, developments, and priorities. National coordination also will serve to link across regions where resource conservation issues and MPA planning and management span regional boundaries. Coordination at the national level will be facilitated by the MPA Center, as required by the Order, and also include the establishment of a National System Steering Committee (Steering Committee) described below.

The Steering Committee should, where possible, be composed of one representative each of federal, state, tribal, and local government and Federal Fishery Management Council within the region and the members of the Federal Interagency MPA Working Group.

The Steering Committee will:

1. provide advice to the MPA Center on annual and long-term priorities and plans for national system support to sites and regions, based on regional stewardship and other priorities and the recommendations of the MPA FAC;
2. identify management issues and other priorities that require inter-regional, national, and/or international coordination or efforts; and
3. review and provide comment on conservation gaps identified at the ecosystem, regional, and/or national levels.

Regional representatives to the Steering Committee will be selected by the participating MPA program agencies in the region. Each federal agency also will maintain an appointed member to the Federal Interagency MPA Working Group, who also serves on the Steering Committee.

International Coordination

In addition to U.S. MPA programs and authorities, there are numerous international MPA efforts and linkages that can contribute to and benefit from the national system. The U.S. shares a number of common resources with both neighboring and distant countries. In recognition of

these important international connections, Section 4(a) of the Order calls on federal agencies to identify opportunities to improve "linkages with, and technical assistance to, international [MPA] programs."

For instance, migratory species (like whales, sea turtles, pelagic fishes, and birds) rely on the marine and coastal waters of multiple countries during various stages of their life. There are also a number of international law and policy issues regarding our underwater cultural heritage. For example, certain cultural resources that rest in the seabed of U.S. MPAs, such as sunken military craft and associated contents that have not been abandoned, have a protected sovereign status**,** and permanent right, title, and interest may be vested in the flag country. To strengthen international coordination on MPA issues, the MPA Center, representing the national system of MPAs; and the Steering Committee, in coordination with the State Department and internationally-relevant regional forums, can seek to enhance existing or establish new linkages with efforts in other countries, in accordance with international law. Such linkages should be focused on issues of mutual benefit to U.S. and international MPAs and MPA programs, such as policy coordination, collaborative activities, information and capacity sharing, and technical assistance.

C. Evaluating National System Effectiveness

Monitoring and evaluating management effectiveness is a key component of an effective, adaptively-managed national system. To this end, the Order calls for "practical, science-based criteria and protocols for monitoring and evaluating the effectiveness of MPAs." Monitoring and evaluation efforts of the national system are focused on measuring the effectiveness of the national system in achieving its objectives, and the contributions of participating MPAs and MPA programs in achieving those objectives. It is not a function of the national system to monitor or evaluate individual MPAs or MPA programs, although the national system can provide assistance to MPA programs to assist them in better evaluating their own efforts. Stakeholders with an interest in participating in the monitoring of individual MPAs or MPA program should consult with the respective managing entity or entities.

The national system's approach to evaluating effectiveness will include:

1. technical and scientific support for fostering sound monitoring and evaluation programs at the participating MPA site or system level;
2. development and implementation of a set of standards and protocols for assessing broader national system effectiveness. In order to be efficient and effective, the development of such standards and protocols requires significant input and advice from participating national system MPA sites and systems; and
3. cooperation with existing or developing observation, monitoring and evaluation programs.

The natural and social science data currently collected and used by MPA sites and systems to monitor and evaluate their own effectiveness will not only help in their adaptive management efforts, but also will contribute to the analysis of the national system's success in meeting its goals. The national system will aim to support the tools and technical assistance needed by partner MPA sites and systems to effectively monitor and evaluate their own effectiveness. It will not create new protocols or programs that require sites or systems to undertake new or expanded activities.

With advice from the MPA FAC, the Steering Committee, national system MPA partners in the regions, and science and management experts, the MPA Center will develop and publish guidance for monitoring and evaluating the effectiveness of the national system. These guidelines will provide an integrated approach for monitoring the biophysical, socioeconomic, and governance elements of the national system and include a set of indicators and performance measures for assessing its effectiveness, including the benefits provided to participating MPA sites and systems.

In addition, if identified as stewardship priorities by participating MPA sites and systems, training and technical assistance efforts targeted at monitoring and evaluation can be developed, such as establishing relevant sets of natural and social science indicators and protocols.

The results of monitoring and evaluating the national system will be used to adaptively manage the system and identify future focus areas for stewardship and other initiatives, including but not limited to: conservation gaps, technical and other forms of assistance in support of MPA sites and programs, and necessary changes to the national system's goals, objectives, or other components.

D. Federal Agency Responsibilities to Avoid Harm

Section 5 of the Order calls for federal agencies to "avoid harm" to the natural and cultural resources protected by MPAs that become part of the national system. Each federal agency is responsible for its own implementation of its responsibilities under Section 5.

The Order states:

Each Federal agency whose actions affect the natural or cultural resources that are protected by an MPA shall identify such actions. To the extent permitted by law and to the maximum extent practicable, each Federal agency, in taking such actions, shall avoid harm to the natural and cultural resources that are protected by an MPA. In implementing this section, each Federal agency shall refer to the MPAs identified under subsection 4(d) of this order.

Implementation

To implement Section 5 of the Order:

- The MPA Center will collect, maintain, and make publicly available via the MPA Center's website, <http://www.mpa.gov>, and *Federal Register* notices, all relevant regulatory and resource information for MPAs that are subject to agency requirements under Section 5, in the form of a List of National System MPAs. MPAs included in the List are those that have satisfied the requirements outlined in Sections IV (B) and (D) of the Framework and are officially a part of the national system of MPAs. Information maintained for each MPA on the List will include: site name, location, boundaries, resources protected, regulations, management authority/program, and point of contact.
- Federal agencies shall: (1) identify their activities that affect the natural or cultural resources protected by national system MPAs, and (2) to the extent permitted by law and to the maximum extent practicable avoid harm to those resources. Both of these activities should be accomplished through existing natural or cultural resource management or review authorities and procedures, including, but not limited to those under:
    - National Environmental Policy Act;

- Coastal Zone Management Act;
- National Historic Preservation Act;
- Endangered Species Act;
- Federal Water Pollution Control Act (a.k.a. Clean Water Act);
- Marine Mammal Protection Act;
- National Wildlife Refuge System Administration Act;
- National Park Service Organic Act;
- Rivers and Harbors Act;
- Sunken Military Craft Act;
- National Marine Sanctuaries Act (a.k.a. title III of the Marine Protection, Research, and Sanctuaries Act);
- Magnuson-Stevens Fishery Conservation and Management Act;
- Outer Continental Shelf Lands Act;
- Coral Reef Conservation Act;
- Energy Policy Act of 2005; and
- Other pertinent statutes and Presidential Executive Orders.

- Upon receipt of a federal agency's request for assistance, the MPA Center will work to facilitate support for policy, coordination, and/or legal assistance as needed on addressing MPAs through existing agency review processes;
- As needed, the MPA Center, working with federal agencies, will produce voluntary technical guidance and best practices on priority issues to assist federal agencies in their determination of impacts to marine resources protected by national system MPAs and options for avoiding harm. The MPA Center also will work with federal agencies to provide clear public outreach materials to educate and inform the public on the requirements of Section 5.
- Federal agencies will report their actions to implement Section 5, any comments received, and responses to such comments on an annual basis as part of the agency report required by Section 6 of the Order. The MPA Center, as required by the Order, will post these reports on the <http://www.mpa.gov> website.

Activities to Be Considered

The implementation of Section 5 is governed by existing authorities, each with its own threshold and/or trigger for requiring individual federal agencies to identify, review, mitigate or otherwise alter their activities based on impacts to natural or cultural resources. The Order does not provide any new authority for any Federal agency or the MPA Center to review activities of any other Federal agency, or alter standards for existing review. As such, the thresholds and/or triggers for agency action under Section 5 are the same as those listed under any existing authority or authorities that normally require agency review of a proposed activity. The new requirement provided by Section 5 is that agencies must now ensure that their activities avoid harm to the natural and cultural resources protected by MPAs included in the national system when fulfilling their existing requirements for identifying, reviewing and implementing their activities.

Furthermore, there are no singular definitions for the terms used to describe the requirements under Section 5, including but not limited to: "avoid harm," "affect," or "to the extent permitted by

law and to the maximum extent practicable." Instead, the meaning of any of these terms, as applied to an agency's requirements under Section 5, in any instance, is dependent on the agency's interpretation, consistent with any required compliance with the legal framework for the resources protected by the MPA and any other applicable natural or cultural resource review or protection authorities or procedures.

Pursuant to Section 5 of the Order, agency requirements apply only to the natural or cultural resources specifically afforded protection by the site as described on the List of MPAs. For sites that have both a terrestrial (i.e., an area that falls outside of the definitional boundaries of 'marine') and marine area, only the marine portion and its associated protected resources will be included on the List of MPAs and subject to Section 5 of the Order.

To implement Section 5, each federal agency shall identify its activities that affect the natural or cultural resources protected by national system MPAs through the existing natural and cultural resource review processes normally required for these activities. Similarly, the determination of whether an agency in taking such actions is avoiding harm to those resources, to the extent permitted by law and to the maximum extent practicable, will be made by the individual agency using its existing natural and cultural resource review processes and/or authorities.

Comment and Response on Agency Actions

Comments from any person, organization, or government entity concerning federal agency compliance with Section 5 should be directed to the relevant lead federal agency for the action or actions that are the subject of the comments. Each agency shall make a determination on the response and take appropriate action. Similarly, any requests for information regarding compliance with Section 5, including those under the Freedom of Information Act (FOIA), should be directed to the lead agency for the action or actions that are the subject of the request. Any comments or requests for information received by the MPA Center or any federal agency in regard to another agency's compliance with this Section shall, pursuant to FOIA procedures, be forwarded in a timely manner to the relevant responsible agency for its consideration, with due notice given to the sender.

Reporting and Periodic Review

As required under *Section 6. Accountability* of the Order, "Each Federal agency that is required to take actions under the order shall prepare and make public annually a concise description of actions taken by it in the previous year to implement the order, including a description of written comments by any person or organization stating that the agency has not complied with this order and a response to comments by the agency." These annual reports will be posted at <http://www.mpa.gov>. In addition, on a biennial basis, the MPA Center will consolidate agency annual reports into a biennial "State of the National System of MPAs" report. The biennial report will include an assessment of overall progress to develop the national system of MPAs and the effectiveness of meeting its stated goals and objectives, including those related to Section 5 of the Order. More information on the biennial report can be found below in Section VI (E) of this document.

E. Tracking and Reporting

Tracking and reporting of the national system are important activities for communicating regional and national accomplishments and priority future efforts in need of support. In order to

track and report progress, the MPA Center will coordinate a 'Biennial State of the National System of MPAs' progress report and post all available data and assessments on the <http://www.mpa.gov> website. In addition, the MPA Center will work with the Steering Committee and participating MPA sites and programs to determine how best to comprehensively track overall national system priorities once efforts to establish it have been initiated. Additional information on these efforts is described below.

Biennial "State of the National System of MPAs" Progress Report

On a biennial basis, the MPA Center, working with its national system partners, will develop and publish on the<http://www.mpa.gov>, a consolidated State of the National System progress report, in accordance with Section 6 of the Order. The report will consolidate and summarize the annual reports submitted by federal agencies for the period and will also include:

1. a list of existing national system MPAs and newly added or removed sites;
2. a summary of federal activities taken in support of the national system;
3. a summary of regional, national, and international planning efforts;
4. a summary of assistance provided to national system MPAs and outcomes;
5. an evaluation of the effectiveness of the national system in meeting its goals and objectives at the national and regional levels;
6. a summary of actions taken to implement Section 5 of the Order;
7. any recommendations developed by the MPA FAC during the period;
8. a description of public comments received and responses sent during the period; and
9. regional, national, and international priorities for future coordination, planning, technical and other types of support (see Section VI (B) of this document).

MPA.gov Website

As required by the Order, the website <http://www.mpa.gov> will be maintained to communicate and archive all information about the development and implementation of the national system. The website will house information about a variety of technical, scientific, governance, and other MPA topics relevant to the breadth of MPA stakeholders, including the MPA FAC. In addition, the website will house information on national system progress, priorities, and plans, including:

1. MPAs found to be eligible for nomination to the national system;
2. MPAs and MPA systems that have been included in the national system;
3. areas and resources identified as national system conservation gaps;
4. recommendations for new or enhanced MPAs resulting from regional MPA planning;
5. regional MPA science, stewardship and effectiveness strategies, and national and other priorities for improving stewardship and effectiveness;
6. international activities and commitments;
7. agency reports;
8. public comments received on MPA nominations to and removals from the national system; and
9. the official List of MPAs.

F. MPA Federal Advisory Committee

The MPA FAC is authorized by the Order to provide expert advice and recommendations to DOC and DOI on the development and implementation of the national system of MPAs. The MPA FAC is comprised of 30 non-federal members representing regionally-diverse perspectives and areas of expertise from all regions of the country, including natural and social science; commercial and recreational fishing; tribal, state governments; oil and gas; tourism; environmental organizations, and others. A full description of the MPA FAC can be found in Appendix B.

Throughout the development and implementation of the national system, the MPA FAC will continue to advise DOC and DOI on priority topics and issues as identified by the agencies. The MPA FAC also will provide recommendations to the MPA Center concerning national system conservation gaps, as described in Section V (D) above.

G. Role of the National MPA Center in the National System

The specific roles of the MPA Center in coordinating the national system are to:

1. provide coordination and facilitation of the national system as a whole (individual MPA programs and agencies remain responsible for administering their sites and systems);
2. build public and private partnerships and catalyze action to support identified science, stewardship, and effectiveness priorities of participating MPA programs;
3. coordinate processes to identify, nominate, and include eligible MPAs into the national system, remove MPAs from the national system, and maintain the List of MPAs;
4. facilitate the development and maintenance of regionally-appropriate MPA coordination mechanisms among participating programs, and where possible, maintain a Regional MPA Coordinator in the field to support such efforts;
5. develop, in consultation with participating programs, regional MPA Science, Stewardship and Effectiveness Strategies;
6. lead collaborative efforts to identify conservation gaps in the national system;
7. build and catalyze partnerships and actions to provide technical or scientific information, staff, or other support for collaborative ecosystem-based MPA planning in order to identify and recommend new or enhanced MPAs;
8. promote stewardship of the national system through effective outreach and education;
9. support the operation of the MPA FAC and the coordination of the Federal MPA Working Group and Steering Committee;
10. track, communicate, integrate, and recommend suggested MPA science and other national system priorities, needs, and commitments across the regional, national, and international levels;
11. develop an annual report, as required by the Order, a biennial “State of the National System of MPAs” report, and maintain comprehensive information about the national systems’ priorities and progress on the <http://www.mpa.gov> website;
12. monitor and evaluate the effectiveness of the national system and implement adaptive management strategies based on results; and
13. maintain the <http://www.mpa.gov> website as a mechanism for communicating information about the national system.

VII. Glossary of Key Terms

The following are definitions of key terms as used in this Revised Draft Framework document. See Table 2 for the full definition of key terms in the definition of MPA.

Adaptive management - "A systematic process for continually improving management policies and practices by learning from the outcomes of operational programs. Its most effective form—'active' adaptive management—employs management programs that are designed to experimentally compare selected policies or practices, by evaluating alternative hypotheses about the system being managed." (British Columbia Forest Service, <http://www.for.gov.bc.ca/hfp/amhome/Amdefs.htm>)

Area - Must have legally defined geographical boundaries, and may be of any size, except that the site must be a subset of the U.S. federal, state, local, or tribal marine environment in which it is located.

Biodiversity - The variety of living organisms in all their forms. Technically, biodiversity includes variety at three levels of biological organization: genetic variation within species, the variety of species, and the variety of ecological communities.

Conservation Area: Multiple uses allowed; however, uses and activities may be restricted or zoned, and access limited as necessary to meet site management goals.

Cultural Heritage - The cultural resources that reflect the nation's maritime history and traditional cultural connections to the sea, as well as the uses and values they provide to this and future generations.

[Marine] Cultural resource - A tangible entity that is valued by or significantly representative of a culture, or that contains significant information about a culture. Cultural resources for purposes of the MPA Executive Order are tangible entities at least 50 years in age that reflect the nation's maritime history and traditional cultural connections to the sea, such as archaeological sites, historic structures, shipwrecks, artifacts, and traditional cultural properties. Cultural resources are categorized as districts, sites, buildings, structures, and objects for the National Register of Historic Places, and as archaeological resources, cultural landscapes, structures, and ethnographic resources for MPA management purposes. Ethnographic resources include natural resources and sites with tribal or traditional cultural meaning, value and use.

Ecological Network – A set of discrete MPAs within a region that are connected through dispersal of reproductive stages (eggs, larvae, spores, etc.) or movement of juveniles and adults. The effective management of certain marine species may require networks of discrete MPAs encompassing regional collections of local populations linked by dispersal and movement, which may be essential for some local populations to persist. The creation of MPA networks must take into consideration other non-MPA areas that provide similar linkages, which does not necessarily imply additional management measures outside MPAs or the creation of a "super MPA" with boundaries encompassing all MPAs in the network.[11]

Ecosystem – A geographically specified system of organisms, including humans and the environment and the processes that control its dynamics.

[11] MPA FAC, 2005.

Ecosystem approaches to management (or Ecosystem-based management) – A management approach that "looks at all the links among living and nonliving resources, rather than considering single species in isolation." This approach "reflects the relationships among all ecosystem components, including humans and nonhuman species, and the environments in which they live. This system of management considers human activities, their benefits, and their potential impacts within the context of the broader biological and physical environment."[12]

Extractive – Activities that remove or are intended to remove living or nonliving resources from an MPA.

Large Marine Ecosystems – Regions of ocean space encompassing coastal areas from river basins and estuaries out to the seaward boundary and continental shelves and the seaward margins of coastal current systems. They are relatively large regions on the order of 200,000km^2 or greater, characterized by distinct bathymetry, hydrography, productivity and trophically dependent populations.

Lasting – For natural heritage and cultural heritage MPAs, the site must be established with the intent at the time of designation to provide permanent protection. For sustainable production MPAs, the site must be established with the intent at the time of designation to provide, at a minimum, the duration of protection necessary to achieve the mandated long-term sustainable production objectives for which the site was established.

Local government – A legally-established unit of government at a level below state government, including but not limited to county, city, town, or village.

Management [managing] entity or authority – The federal, state, local, or tribal entity or entities with legal authority to designate, promulgate regulations for, and/or manage an MPA. In many cases, authority lies with one agency or program; however, in certain instances, such as the federal/state National Estuarine Research Reserve System and state/tribe co-management arrangements, authority is formally shared or split among two or more entities.

Marine environment – Must be: (a) ocean or coastal waters (note: coastal waters may include intertidal areas, bays or estuaries); (b) an area of the Great Lakes or their connecting waters; (c) an area of lands under ocean or coastal waters or the Great Lakes or their connecting waters; or (d) a combination of the above.

Marine Protected Area – Any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein. See also Area, Marine environment, Reserved, Lasting, and Protection.

Marine Reserve – A type of MPA where extractive uses are prohibited (also referred to as "no-take" reserve).

National System of MPAs – An assemblage of MPA sites, systems, and networks established and managed by federal, state, tribal, or local governments that collectively work together at the

[12] U.S. Commission on Ocean Policy (USCOP). 2004. An Ocean Blueprint for the 21st Century, Washington, D.C.

regional and national levels to achieve common objectives for conserving the nation's important natural and cultural resources.

Natural Heritage – The nation's biological communities, habitats, ecosystems, and processes, and the ecological services, uses, and values they provide to this and future generations.

[Marine] Natural resource – Any biological or physical component of the marine environment that contributes to the structure, function, or services provided by a marine ecosystem.

Network – A set of discrete MPAs within a region or ecosystem that are connected through complementary purposes and synergistic protections. A network of MPAs could focus on ecosystem processes, certain individual marine species, or cultural resources. For example, an ecological network of MPAs could be connected through dispersal of reproductive stages or movement of juveniles and adults.

Precautionary Approach - Where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. The approach is concerned with avoiding risk that has not been assessed, i.e., uncertainty.

Protection – Must have existing laws or regulations that are designed and applied to afford the site with increased protection for part or all of the natural and submerged cultural resources therein for the purpose of maintaining or enhancing the long-term conservation of these resources, beyond any general protections that apply outside the site.

Region or Regional – An area inclusive of and determined by participating national system sites and systems that is based on common management interests, similar or linked ecological characteristics, and/or other factors that provide a foundation for meaningful coordination.

Reserve Area - No extractive uses allowed, except permitted scientific and educational uses; destructive or disruptive activities limited; other uses and activities may be restricted or zoned, and access limited, as necessary to meet site management goals.

Reserved – Must be established by and currently subject to federal, state, local, or tribal law or regulation.

Stakeholder – Individuals, groups of individuals, organizations, or political entities interested in and/or affected by the outcome of management decisions. Stakeholders may also be individuals, groups, or other entities that are likely to have an effect on the outcome of management decisions. Members of the public also may be considered stakeholders.

State – See United States.

Stewardship – Careful and responsible management to ensure goals and objectives are being achieved for the benefit of current and future generations.

Sustainable Production Resources – The renewable living resources and their habitats, including, but not limited to, spawning, mating, and nursery grounds, and areas established to minimize incidental by-catch of species, that are important to the nation's social, economic, and cultural well-being.

System – A set of MPAs connected by shared programmatic, administrative, or other organizing principles or purposes. A system of MPAs is not necessarily confined to a specific geographic area such as a region or ecosystem.

Tribe – A federally recognized American Indian or Alaska Native government.

United States – Includes the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam.

VIII. Administrative and National Policy Requirements

1. Nothing in Executive Order 13158 or this Framework shall be construed as altering existing authorities regarding the establishment of federal MPAs in areas of the marine environment subject to the jurisdiction and control of states, the District of Columbia, Commonwealth of Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.
2. Neither Executive Order 13158 nor this Framework creates any right or benefit, substantive or procedural, enforceable in law or equity by a party against the U.S., its agencies, its officers, or any person.
3. Neither Executive Order 13158 nor this Framework diminishes, affects, or abrogates Indian treaty rights or U.S. trust responsibility to Indian tribes.
4. Federal agencies taking actions pursuant to Executive Order 13158 or under this Framework must act in accordance with international law and with Presidential Proclamation 5928 of December 27, 1988, on the Territorial Sea of the United States of America; Presidential Proclamation 5030 of March 10, 1983, on the Exclusive Economic Zone of the United States of America; and Presidential Proclamation 7219 of September 2, 1999, on the Contiguous Zone of the United States.

IX. Appendices

Appendix A. Acronyms and Abbreviations Used

Acronyms

COP – Commission on Ocean Policy

DOC - Department of Commerce

DOI - Department of the Interior

FMC – Federal Fishery Management Council

FWS - U.S. Fish and Wildlife Service

LME - Large marine ecosystem

MPA - Marine protected area

MPA FAC - Marine Protected Area Federal Advisory Committee

NRCE - National Register Criteria for Evaluation

NRHP - National Register of Historic Places

NERRS - National Estuarine Research Reserve System

NMFS - National Marine Fisheries Service

NOAA - National Oceanic and Atmospheric Administration

SIMOR – Subcommittee on Integrated Management of Ocean Resources

U.S. - United States of America

USOAP - U.S. Ocean Action Plan (USOAP)

USGS – US Geological Survey

Abbreviations

Draft Framework - Draft Framework for Developing the National System of MPAs

List of MPAs - National System List of MPAs

MPA Center - National Marine Protected Areas Center

National System - National System of Marine Protected Areas

Order - Executive Order 13158 of May 26, 2000

Revised Draft Framework - Revised Draft Framework for Developing the National System of MPAs

Steering Committee - National System Steering Committee

Strategy - MPA Stewardship, Science and Effectiveness Strategy

Appendix B. Existing U.S. MPA Programs, Federal MPA Initiatives, Tribal, and International Efforts

The nation's existing suite of MPA sites, programs, authorities, and systems at all levels of government are the fundamental components of the national system. The recognition of and full participation by these federal, state, tribal, and local government programs are critical to the national system's success. Working together, these existing programs and authorities, federal MPA coordination initiatives, and linkages to international MPA initiatives will make important contributions to and receive benefits from the development of an effective national system. This section provides an overview of these major efforts and generally describes their respective roles in the national system.

A. U.S. MPA Programs and Authorities

MPAs in the U.S. are managed by a number of agencies and programs at federal, state, tribal, and local government levels. This section provides a brief summary of these programs and describes the nature of their role in the development of the national system.

Federal and Federal/State MPA Programs

Currently, there are several federal and one federal/state partnership MPA programs in the U.S. Each has one or more specific legal mandates that it is required to fulfill. Many of these programs have established and actively manage systems of MPAs designed to fulfill their responsibilities to the nation. As described below, these federal MPA programs include DOI's National Park System and National Wildlife Refuge System, and NOAA's National Marine Sanctuary System, National MPA Center, and National Marine Fisheries Service programs, while the National Estuarine Research Reserve System is composed of NOAA/state partnerships.

National Park System: The National Park System is administered by DOI's National Park Service with a mission to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. The National Park System preserves unimpaired natural and cultural resources and values representative of the nation's ocean heritage in superlative natural, historic, and recreation areas in every region. The National Park System currently contains 72 ocean and Great Lakes parks.

National Wildlife Refuge System: The U.S. Fish and Wildlife Service's (FWS) mandate is to provide the federal leadership to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of people. The mission of the National Wildlife Refuge System, a program within the DOI FWS, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the U.S. for the benefit of present and future generations of Americans. There are 177 ocean and Great Lakes refuges.

National Marine Sanctuary System: Under the National Marine Sanctuaries Act, NOAA establishes areas of the marine environment that have special conservation, recreational, ecological, historical, cultural, archaeological, scientific, educational, or aesthetic qualities as national marine sanctuaries to: (A) improve the conservation, understanding, management, and wise and sustainable use of marine resources; (B) enhance public awareness, understanding, and appreciation of the marine environment; and (C) maintain for future generations the habitat

and ecological services, of the natural assemblage of living resources that inhabit these areas. There are currently 13 established national marine sanctuaries.

National Marine Protected Areas Center (MPA Center): The mission of the MPA Center is to facilitate the effective use of science, technology, training, and information in the planning, management, and evaluation of the nation's system of marine protected areas. The MPA Center is housed within NOAA and coordinates across NOAA programs, as well as with pertinent federal, state, tribal, and local MPA and MPA-support agencies. At the federal level, the MPA Center coordinates closely with DOI. The MPA Center's specific national system roles are described in detail in Section VI (A)(I) of this document.

National Marine Fisheries Service (NOAA Fisheries Service) Programs and Federal Fishery Management Councils (FMC): Under a number of statutory authorities, NOAA Fisheries Service establishes and manages MPAs to rebuild and maintain sustainable fisheries, conserve and restore healthy marine habitats, and promote the recovery of protected species, including marine mammals and anadromous fish. These sites fall under four major categories: Federal Fisheries Management Zones, Federal Fisheries Habitat Conservation Zones, Federal Threatened and Endangered Species Protected Areas, and Federal Marine Mammal Protected Areas. FMCs have been established for the stewardship of fishery resources through the preparation, monitoring, and revision of fishery management plans. These FMCs enable states, the fishing industry, consumer and environmental organizations, and other interested persons to participate in and advise on the management of marine fisheries, and to take into account the social and economic needs of the states. FMC-recommended actions are subject to review and approval by the Secretary of Commerce through a delegation of authority to NOAA's Fisheries Service. NOAA Fisheries Service is responsible for the promulgation of site-specific regulations to delineate MPA boundaries and establish associated protective measures.

National Estuarine Research Reserve System (NERRS): The mission of the NERRS is to promote stewardship of the nation's estuaries through science and education using a system of protected areas. The NERRS, which is currently made up of 27 sites, is a unique partnership program between NOAA and the coastal states to protect estuarine land and water, which provides essential habitat for wildlife; offers educational opportunities for students, teachers, and the public; and serves as living laboratories for scientists. With its unique state/federal partnership, the NERRS participation with the national system will require close consultation and coordination with the NOAA Estuarine Reserves Division and state agency or university staff of NERRS sites.

National Monuments: In June 2006, President Bush established the Northwestern Hawaiian Islands Marine National Monument under Presidential Proclamation 8031 (71 FR 36443, June 26, 2006) under the authority of the Antiquities Act (16 U.S.C. 431). This was the Nation's first marine national monument. The Monument – renamed the Papahānaumokuākea Marine National Monument, to reflect Hawaiian language and culture in March 2007 -- is approximately 100 nautical miles wide and extends approximately 1,200 miles from northwest to southeast around the NWHI. In December 2006, the Secretaries of Commerce and the Interior and the Governor of Hawai'i signed a Memorandum of Agreement to jointly manage Federal and State lands and waters within the Monument as Co-Trustees, to collectively conserve and manage Monument natural and cultural resources.

State and Local Government MPA Programs

Each U.S. coastal state also has a variety of MPA programs and authorities, often at both the state and local government levels. State MPA programs can include: Historic Preservation offices; Fish and Wildlife agencies; Coastal Zone Management programs; Fishery Management agencies; Parks and Recreation agencies, and other authorities. MPAs are used by states for a variety of purposes ranging from managing fisheries, recreation, tourism, and other uses to protecting ecological functions, preserving shipwrecks, and maintaining traditional or cultural connections to the marine environment. In addition, local governments within coastal states, such as counties and other municipalities, have programs that establish and manage MPAs for protecting marine species, nursery grounds, shellfish beds, and other important natural and cultural resources. Similar to their federal analogs, some state MPA programs have also developed and continue to manage their existing sites as systems of MPAs.

Given the significant coastal and marine resources under state jurisdiction, the large number of state MPAs – roughly 83 percent of the national total – compared to federal sites, and the potential impacts and benefits to states from MPAs located in federal waters, full state participation in the development of the national system is critical to its success. It is important to note, however, that state and local government participation in the national system is voluntary under the Order. The MPA Center will work closely with states to determine their interest in participating. State government agencies, programs, and authorities that elect to participate in the national system will be full partners and have an equal voice in decision-making to set priorities for collaborative efforts at the regional and national level.

Tribal MPA Authorities, Programs and Linkages

Tribal governments have an integral role to play in resource management, legally, culturally and economically. The Order "does not diminish, affect, or abrogate Indian treaty rights or United States trust responsibilities to Indian tribes," and calls on NOAA and DOI to "consult with…tribes…and other entities to promote coordination of federal, state, territorial, and tribal actions to establish and manage MPAs." Because the federal government has a trust responsibility to all federally recognized tribes, conservation goals and management practices for MPAs should be established through government-to-government consultations.

In addition, several Indian tribes in Western Washington and the Great Lakes have treaty-reserved fishing rights. These tribes share co-management authority and responsibility for marine resources in their usual and customary fishing areas with the federal government and/or states depending on the specific resource and area identified. Tribes that have sole management authority may choose to establish MPAs as a tool to meet conservation goals for areas where they have management responsibilities. For areas where tribes share co-management authority with the federal government and/or states, any entity wishing to establish MPAs must do so through government-to-government consultations. The MPA Center will work closely with tribes to determine their interest in participating. Tribal governments that elect to participate in the national system will be full partners and have an equal voice in decision-making to set priorities for collaborative efforts at the regional and national levels.

Numerous opportunities to enhance coordination and collaboration with tribes on issues related to MPAs are possible through the development of the national system. Some of these opportunities could include a range of potential partnerships aimed at the sharing of information; enhancing technical, scientific, and management capacity; and developing conservation strategies for marine resources of mutual concern. The MPA Center and national system partners, many of whom have ongoing relationships with tribes, will consult with tribal

governments to determine their interest in participating in the national system, and will work with them to develop appropriate mechanisms and protocols.

B. Linkages to Related Federal MPA Initiatives

There are several other significant federal MPA Initiatives that are either directly or indirectly linked to the development of the national system. These efforts make important contributions to and can benefit from the development of the national system. This section provides an overview of each of these efforts and further describes their relationship and role in the development of the national system.

MPA Federal Advisory Committee

The MPA FAC is authorized by the Order to provide expert advice and recommendations to DOC and DOI. The MPA FAC is comprised of 30 non-federal members representing diverse perspectives and areas of expertise, including natural and social science, commercial and recreational fishing, tribal, state government, oil and gas, tourism, environmental organizations, and others. The MPA FAC also includes ten federal ex officio members to provide information and support from agencies managing, supporting, or potentially affecting MPAs. The MPA FAC completed its first report in June 2005, which provided recommendations on the goals, objectives, principles, and structure of the national system. The MPA FAC will continue to advise DOC and DOI on aspects of developing and implementing the national system. Information on MPA FAC members and its work products are posted at <http://mpa.gov/fac/fac.html>.

The Federal Interagency MPA Working Group

The Order directs DOC and DOI to work closely with the other federal agencies to develop the national system. To provide a mechanism for this coordination, the MPA Center established the Federal MPA Working Group, which includes representatives from the Departments of Commerce, the Interior, Defense, Homeland Security, State, Agriculture, Environmental Protection Agency, National Science Foundation, and the U.S. Agency for International Development. The Federal MPA Working Group meets several times a year to provide input on policy issues related to national system development, coordinate activities related to the Order, and support the work of the MPA FAC. In addition, members of the Federal MPA Working Group will serve as members of the National System Steering Committee (see Section VI (B)).

U.S. Ocean Action Plan

The U.S. Ocean Action Plan (USOAP) outlines a variety of actions for promoting the responsible use and stewardship of ocean and coastal resources for the benefit of all Americans. A Cabinet-level “Committee on Ocean Policy” (COP) was established by Executive Order 13366 (December 17, 2004) to coordinate the activities of executive branch departments and agencies regarding ocean related matters in an integrated and effective manner to advance the environmental and economic interests of present and future generations of Americans. The President further directs the executive branch agencies to facilitate, as appropriate, coordination and consultation regarding ocean-related matters among federal, state, tribal, local governments, the private sector, foreign governments, and international organizations. Subcommittees of the COP also have been formed as part of the ocean governance structure described in the USOAP, including the Subcommittee on Integrated Management of Ocean Resources (SIMOR) and the Joint Subcommittee on Ocean Science and Technology. Many of the activities outlined in the USOAP and the subsequent work plans of the COP’s subcommittees complement efforts to develop the national system. Similarly, many of the

collaborative actions under the national system may offer opportunities to help advance the USOAP. As these efforts proceed, the MPA Center will work closely with SIMOR to evaluate progress and plans for developing the national system in order to ensure coordination and consistency with the USOAP's governance structure and overall approach.

In support of this effort, the USOAP calls on National Parks, National Wildlife Refuges, National Marine Sanctuaries, and National Estuarine Research Reserves to, "coordinate and better integrate the existing network of marine managed areas." Many of these sites overlap or lie adjacent to each other and a history of collaboration between parks, marine sanctuaries, refuges, and reserves provides a model for this expanded network. Although these sites were created under separate agency authorities and statutory mandates, they are united by their proximity and similar science and management priorities. These actions to coordinate and better integrate efforts have been aptly named and are hereafter referred to as the "Seamless Network" initiative. The Seamless Network concept reflects the Administration's emphasis on greater scientific and programmatic coordination between ocean agencies, and complements efforts to implement the MPA Executive Order. In addition, the USOAP calls on the National Park Service to adopt an Ocean Parks Stewardship Action Plan. Both the Seamless Network and Ocean Parks Stewardship Action Plan are described below.

Seamless Network Initiative

The USOAP calls on the four above mentioned MPA systems to work together, "to promote coordination of research, public education, and management activities at neighboring parks, refuges, sanctuaries, and estuarine reserves." Two federal interagency agreements are called for under this effort. The first is a general agreement that enables site-based, regional, and national collaborations among the partner agencies, and is currently under development. The second is a separate cooperative enforcement agreement signed in August 2005 among the National Wildlife Refuge System, National Park Service, National Marine Sanctuary Program and National Marine Fisheries Service. When implemented, these agreements will ultimately contribute to several important elements of the national system, such as the identification of science and stewardship priorities for enhancing MPA effectiveness through enhanced interagency cooperation and information sharing. The Seamless Network Initiative will also provide an ongoing coordination mechanism for these MPA systems in the development of the national system, and will build on existing collaborative efforts. In many cases these MPAs have ongoing collaborations and the Seamless Network will expand and enhance those relationships. The wider set of eventual national system partners such as other federal programs and state, tribal, and local government MPA sites and systems may benefit from this model. An active dialogue exists and will be maintained between the developing national system and the Seamless Network Initiative efforts in order to ensure that they complement one another.

Ocean Parks Stewardship Action Plan

The USOAP calls for the adoption of an Ocean Parks Strategy by the National Park Service. Key elements of this strategy include: characterizing marine species and habitats; evaluating and monitoring their condition; increasing the scientific understanding of how marine ecosystems function; and developing cooperative science based fishery management plans between parks and state agencies. This plan was issued in December 2006 and may be viewed at http://www.nps.gov/pub_aff/oceans/Ocean_Park_ActionPlan.pdf. This important effort offers opportunities for collaborative approaches between the National Park Service, the Seamless Network initiative, and the national system to address shared science and management priorities.

C. International MPA Programs and Authorities

In addition to U.S. MPA programs and authorities, there are numerous international MPA efforts and linkages that can contribute to and benefit from the national system. Marine ecosystems and their associated natural resources rarely align with the political boundaries of sovereign countries. Moreover, ecosystems often overlap with adjacent countries and some natural resources may move back and forth between distant countries. In recognition of these important international connections, section 4(a) of the Order calls on federal agencies to identify opportunities to improve "linkages with, and technical assistance to, international [MPA] programs."

The U.S. shares a number of common resources with both neighboring and distant countries. For instance, migratory species (like whales, sea turtles, pelagic fishes, and birds) rely on the marine and coastal waters of multiple countries during various stages of their life. There are also a number of international law and policy issues regarding our underwater cultural heritage. For example, certain cultural resources that rest in the seabed of U.S. MPAs, such as sunken military craft and associated contents that have not been abandoned retain their protected sovereign status**,** and permanent right, title, and interest may be vested in the flag country.

Enhancing existing or establishing new linkages amongst systems in other countries can mutually benefit the U.S. and international MPAs through coordination of efforts, information and capacity sharing, and technical assistance. Along with sharing common resources, the U.S. also shares the consequences of potentially harmful activities occurring outside of U.S. waters, including pollution, over-harvesting of marine resources, and degradation of associated habitats. By coordinating with international MPA programs, the U.S. can minimize the harmful impacts of external activities and maximize the benefits of MPAs.

For U.S. MPAs, important international linkages include, but are not limited to, those relating to Canada, Mexico, and Russia, as well as those amongst multiple countries in the Arctic, Pacific Islands and Caribbean. Several legal mechanisms, such as bi-lateral and multi-lateral agreements and treaties, exist to address many of these resource management issues. For example, the International Maritime Organization's Particularly Sensitive Sea Areas program and the Wider Caribbean Protocol Concerning Specially Protected Areas and Wildlife are two MPA-related international efforts of significance. The MPA Center and/or its federal partners are actively involved in a number of such efforts, including the Commission on Environmental Cooperation's development of a North American MPA Network and the exchange of training and technical assistance with other nations. The national system can facilitate a dialogue and develop collaborative efforts between the U.S. and other countries to complement and support the work of MPA programs.

Appendix C. Response to Comments on the Draft Framework for Developing the National System of MPAs

In September 2006, NOAA and DOI (agencies) published the *Draft Framework for Developing the National System of MPAs* (Draft Framework) for public comment. By the end of the nearly five-month comment period, over 11,000 submissions representing 100 discrete comments, as well as an internet petition with over 10,000 e-mails, had been received from a variety of government agencies, non-governmental organizations, industry and conservation interests,

and advisory groups, and the public. In addition, in April 2007, based on the comments received on the draft Framework, NOAA and DOI solicited additional advice from the MPA Federal Advisory Committee (MPAFAC) on three key issue areas.

Given the breadth, multi-faceted nature, and complexity of comments and recommendations received, related comments have been grouped below into categories to simplify development of responses. For each of the comment categories listed below, a summary of comments is provided, and a corresponding response provides an explanation and rationale about changes that were or were not made in the Revised Draft Framework for Developing the National System of MPAs (Revised Draft Framework).

Comment Category 1: General comments on Draft Framework format, content, and approach
Comment Category 2: Goals and objectives of the national system
Comment Category 3: MPA definition, criteria, and national system size
Comment Category 4: Nomination Process
Comment Category 5: Sequence of nominating existing sites and identifying gaps
Comment Category 6: Monitoring and Evaluation
Comment Category 7: Tribal Role
Comment Category 8: Federal Agency Responsibility to Avoid Harm
Comment Category 9: Stewardship, Coordination and Benefits
Comment Category 10: Levels of protection afforded by MPAs and the national system
Comment Category 11: Regional and international contexts
Comment Category 12: Draft Environmental Assessment

Comments and Responses

Comment Category 1: General comments on Draft Framework format, content, and approach
Summary:
A variety of comments were received on the general content, structure, format, and approach of the document, as a whole. These included requests for clarification, simplification, reorganization, and deletion of sections of the document, terminology, and definitions in order to make the document more readable. Examples include removal of draft Framework Section V (A) on the analysis of marine managed areas and providing for a separate section on improving MPA stewardship and effectiveness.

Response:
The agencies agree that clarification and simplification of the Draft Framework is necessary to clarify, reduce confusion, and improve readability of the document. Proposed changes to the Revised Draft Framework based on these comments have resulted in significant modifications to the overall structure and content of the document. Removal of the detailed MMA inventory discussion will streamline the document by focusing on more relevant information for agencies and the public. Simplification and clear communication were key considerations in the proposed changes.

The more significant of these changes include:

- The overall approach of the Draft Framework has been revised into a simplified, clearer Revised Draft Framework document. Memoranda on national system priorities will be published on an as needed basis.
- Section V (A) of the Draft Framework, which outlined analysis findings about U.S. marine managed areas (MMA), and the corresponding glossary and acronym entries have been removed to reduce unnecessary confusion over the terms MMA and MPA.
- As part of the introductory discussion about why a national system is needed, references to the National Academy of Sciences' study of MPAs have been added.
- The concept of 'adaptive management' has been better incorporated into entire document.
- Section VII of the Draft Framework "Developing the National System of MPAs" has been reorganized and a separate section for "Enhancing Stewardship and Effectiveness has been created.
- Definitions for "ecological networks" and "ecosystem approaches to management" have been added to the Glossary.

Comment Category 2: Goals and objectives of the national system

Summary:

A number of comments were received indicating that natural heritage, cultural heritage, and sustainable production should not be defined as "comprehensive themes" for the national system as described in the Draft Framework. Commenters further explained that these themes were confusing in relation to types of MPAs and the goals of the national system. Readers also were not clear what the national system is attempting to accomplish or how the MPA Center will prioritize among the variety of possible conservation objectives within the national system. Some expressed concern that this lack of prioritization would render the national system too large in scope to be effective. Related comments also were raised concerning the Draft Framework's use of the term "compatible uses" rather than "appropriate access," as recommended by the MPAFAC for goals of the national system.

Response:

The agencies agree with the comments about using consistent terminology for natural heritage, cultural heritage, and sustainable production as goals for the national system, rather than themes. To address the comments, agencies propose in the Revised Draft Framework a new set of priority conservation objectives for each national system goal. These objectives were developed by the MPAFAC and revised by the MPA Center. These objectives also were prioritized to guide the gradual implementation of the national system over time as available resources permit.

In addition, to address concerns about 'access' terminology, the agencies have removed the concepts of "appropriate access" and "compatible uses" from goals and objectives section of the document, and included the MPAFAC's language of "appropriate access and use consistent with [marine conservation] goals and objectives" in the new "Planning and Implementation Principles" section of Revised Draft Framework.

The agencies also responded to other comments on goals and objectives in the following ways:

- Goal 1, from the Draft Framework has been separated into three separate goals to focus the national system's goals on marine conservation: natural heritage, cultural heritage, and sustainable production resources. Each of these goals also includes more specific conservation objectives to guide the national system.
- Goals 2 and 3 from the Draft Framework, which focused on stewardship and coordination, respectively, are incorporated in new sections of the Revised Draft Framework under "Implementing the National System."
- An approach to building the national system gradually over time based on prioritized conservation objectives has been incorporated, as recommended by the MPA FAC.
- An explanation of how the new set of conservation objectives was prioritized and the process for iterative implementation over time has been included in the Revised Draft Framework.

Comment Category 3: MPA definition, criteria, and resultant national system size

Summary:

A number of comments were received concerning the various key terms associated with MPA definition (e.g., "lasting") and other MPA eligibility criteria for the national system in the Draft Framework. The vast majority of these comments expressed concern that the criteria were too broad and inclusive. Related and often in conjunction with these "criteria" comments, were concerns indicating that the number of eligible sites based on these inclusive criteria would result in a national system that would be too large in size and scope to be effective. To this end, a number of commenters suggested that MPAs should be required to have a management plan in order to be eligible for the national system.

Finally, a number of comments indicated that the definitions of "lasting" provided by the MPAFAC in June 2005 should be used – including the "minimum 10-year duration of protection" and "indefinite" definitions – rather than the "permanent" meaning found in the Draft Framework. These commenters indicated that the Draft Framework definition negated the concept of adaptive management. Several comments also requested modification of the definition of "lasting" to better accommodate fishery management MPAs, which typically are not established in permanence, given their goals for sustainable use.

Response:

With regard to issues raised about the overall inclusiveness of the proposed MPA criteria, a new MPA criterion requiring MPAs to have a management plan to be eligible for the national system has been added to the Revised Draft Framework. This criterion was developed by the MPAFAC, and will significantly limit the number of sites that are eligible for the national system. The vast majority of sites that would no longer be eligible are sites not typically thought of as MPAs, but otherwise conformed to the proposed technical definitions associated with the term "MPA." For example, hundreds of sites designated to overlay and provide additional water quality protections to existing MPAs, such as outstanding water designations, do not meet the management plan requirement. To address potential concerns about unintentional exclusion of eligibility due to this new requirement, language was added to allow, at managing entity request, evaluation and inclusion of sites on a case-by-case basis that may not meet this criterion but contribute to priority conservation objectives of the national system.

The management plan requirement is one of three new approaches in the Revised Draft Framework which are intended to work in concert to address concerns about the size of the

national system. The second approach is the use of the near, mid, and long term priority conservation objectives described in Comment Category 2, above. This approach will result in the gradual building of the national system over time, such that it can be effectively implemented and achieve success. The third proposed approach is a new set of MPA categories for use within the national system.

These categories will: (1) provide a limited set of user friendly terms for communicating about each national system MPA's purpose and level of protection; (2) partition the national system into manageably sized groups of comparable sites to ease identification of shared technical or other assistance; (3) package sites based on comparable conservation objectives to facilitate identification of gaps in protection; and (4) provide a logical framework for organizing and tracking how sites added to the national system contribute to the system's conservation objectives. These categories also are consistent with the more detailed MPA classification system developed by the MPA Center, which remains available for more detailed analysis.

With regard to the broader issue of using the MPA FAC's "lasting" definition, the agencies contend that for natural and cultural heritage MPAs the proposed definition in Draft Framework does not equal "permanent," and is, in fact the same definition provided by the MPAFAC for the term "indefinite." Moreover, while a well-thought out rationale was provided for the "minimum 10-year duration of protection" clause, the agencies find 10 years to be, in fact, arbitrary. For example, no bona fide scientific justification could be found for a 10-year minimum, versus, say 11, or 9, years.

As such, and given the Order's intent for a national system that benefits current and future generations, the agencies find that the most reasonable definition for natural and cultural heritage MPAs is as proposed in the Draft Framework, "established with the intent at the time of designation to provide permanent protection."

The agencies agree, however, that further clarification is needed on the issue of adaptive management and the definition of "lasting." As such, the definition of "lasting" in the Revised Draft framework includes the following language, provided by the MPAFAC, clarifying that the proposed definition, "recognizes that subsequent to establishment, MPA designation and level of protection may change for various reasons, including natural disasters that may destroy or alter resources, or changes in societal values." Should any of these changes occur, the status of the MPA relative to the national system would be re-evaluated.

The agencies also agree that sustainable production MPAs are generally established with the intent to last as long as necessary to achieve the restoration of the targeted species, group of species, or their associated habitat to allow for future harvest. As a result, sustainable production MPAs are almost never established with the intent to be permanent; and the duration of time necessary to achieve the intended restoration varies by the resource targeted. Therefore, the national system's definition of "lasting" for sustainable production MPAs has been clarified in the Revised Draft Framework as follows "must be established with the intent at the time of designation to provide, at a minimum, the duration of protection necessary to achieve the long-term sustainable production objectives for which the site was established."

Comment Category 4: Nomination Process

Summary:

Several commenters requested clarification of the state role in nominating sites for the national system, especially those federal sites that are adjacent to state waters. Other commenters also

raised concerns over the role of Federal Fishery Management Councils vis-à-vis NMFS, in the nomination of sites to the national system. Several comments also raised questions about the role of the public in the nomination of MPAs to the national system.

There also appeared to be confusion concerning how the nomination process would apply to existing and potential future sites. The term "candidate" with reference to eligibility for nomination was noted as confusing. One comment also recommended that the MPA Center publish the set of MPAs that are eligible for the national system, concurrently with the final Framework.

Response:
Based on comments regarding the role of certain entities, ranging from Federal Fishery Management Councils (FMC) to the public, in the nomination process, the agencies have added specific language to Section 5 (B) of the Revised Draft Framework. It is not practical, however, for the nomination process to allow stakeholders to directly nominate existing sites to the national system since the managing entity has the authority for management decision-making about its sites. As a result, language has been added to direct stakeholders who are interested in the nomination of certain MPAs to contact and work with the respective managing entity or entities. Similar language has been added with regard to involvement of governmental entities with an interest in the nomination of certain MPAs for which they do not have management authority.

Additionally, proposed language has been added to clarify the MPA nomination role in cases where shared or other formal management arrangements may be in place, for example between FMCs and NMFS. This language stipulates that where such arrangements exist, the multiple agencies shall be consulted with regard to the nomination of corresponding MPAs.

The agencies also agree that the term "candidate" as used in the Draft Framework to identify MPAs that are eligible for nomination to the national system proved to be confusing. As such, based on recommendations from the MPAFAC, the term "Eligible" is used in the Revised Draft Framework to indicate those MPAs that are eligible for the national system. Similarly, once nominated by the managing entity or entities, the MPA will be termed "nominated."

Other changes in the Revised Draft Framework in response to related comments include:

- Language has been added to clarify that the nomination section refers only to existing sites, and a new section regarding the establishment of new MPAs has been added to clearly describe those processes.
- A separate notice will be published concurrently with the final framework that outlines the near term priority objectives that the system will focus on and also lists the set of existing, eligible MPAs for nomination.

Comment Category 5: Sequence of nominating existing sites and identifying gaps
Summary:
Several comments were received on issues regarding the national system's treatment of existing versus new MPAs. These comments ranged from the need to clarify different processes for existing versus new MPAs, to the need to merge the two processes and place greater emphasis on the identification of gaps. A number of comments called for a separate

section on new MPAs to be added. Comments also were received noting that the process for removing an MPA from the system was unclear.

Response:
In order to address these comments on the sequence of nominating sites and identifying gaps, the agencies have made the following modifications to the Revised Draft Framework.

- To sequence the nomination of existing MPAs and meet the highest priorities for the national system within limited funding, the set of priority conservation objectives described in Comment Category 2, above, have been added with a detailed description of the sequence of their implementation.
- A separate section has been added on new MPA sites to fill gaps in the national system. This will provide clarity on the gap analysis process, as well as the roles and responsibilities of the MPA Center, national system, and managing entities in creating new MPA sites.
- The section that describes the process for identifying gaps in the national system has been revised to provide greater clarity to related activities and timing. Similarly, a new set of national system design principles has been added to guide identification of gaps in the system. These design principles are based on similar principles recommended by the MPAFAC and others described in, *Establishing networks of marine protected areas: A guide for developing national and regional capacity for building MPA networks. Non-technical summary report* (WCPA/IUCN. 2007).
- A section on removing MPAs from the national system has been added and additional clarification has been provided on the roles of managing entities and the MPA Center.
- Several diagrams have been added to better illustrate the processes associated with building and implementing the national system.

Comment Category 6: Monitoring and Evaluation
Summary:
Several commenters indicated that monitoring and evaluation standards and protocols for sites included in the national system should be included in the Framework. A number of commenters also indicated an interest in having the public and other MPA stakeholders participate in the monitoring and evaluation of MPA sites once the national system is established. Others expressed a strong interest in participating in the monitoring and evaluation of specific sites within the national system.

Response:
The agencies agree with commenters that protocols and standards for evaluating the effectiveness of the national system are critical. Nonetheless, in order to develop the most meaningful evaluation standards for the national system, these protocols and indicators of effectiveness must be developed in collaboration with the participating managing agencies and regional partners. As such, it would be premature for to develop guidance or standards prior to this collaboration process.

In addition, while commenters expressed an interest in both having the national system focus on and MPA stakeholders participate in the monitoring and evaluation of specific sites within the national system, the agencies maintain that this is not the purpose or intent of the national system. To this end, clarifying language was added to direct stakeholders with an interest in

participating in the monitoring of individual MPAs to work directly with the respective managing entity or entities.

In addition, clarification was added to the Revised Draft Framework to note that it is neither the MPA Center's nor national system's role to monitor individual MPAs or MPA programs in terms of their ability to meet their mandated or otherwise required goals and objectives. The monitoring and evaluation efforts of the national system pertain to the effectiveness of the national system in achieving its own objectives, the contributions of participating MPAs and MPA programs in achieving those national system objectives, and providing assistance to MPA programs to better evaluate their own efforts pertaining to their own programmatic authorities.

Comment Category 7: Cultural and Tribal Comments

Summary:

A number of commenters suggested that the National Register of Historic Places Criteria for Evaluation (NRHPCE) should be adopted verbatim, rather than piecemeal as in the Draft Framework, as they are the accepted standard for assessing the significance of cultural resources.

Several comments also were received expressing concern that the existing roles and authorities for tribal nations might be altered by the development and implementation of a national system. Additionally, comments were received indicating concern that the definition of the term "cultural resource" in the Draft Framework would exclude tribal sacred sites and other submerged places of cultural, historical, and archeological value to tribes.

The comments also requested that the national system recognize the cultural importance of marine resources beyond those designated as "cultural resources," for example that fishing is a way of life for many indigenous communities.

Response:

The agencies agree with commenters that incorporating the NRHPCE in whole, rather than in part, would eliminate any ambiguity as to the standards being used for the national system. To this end, the verbatim NRHPCTE have been included in the Revised Draft Framework.

With regard to concerns regarding the potential jeopardy to existing roles and authorities of tribal nations, the agencies assert that these will not be altered in any way by the implementation of the national system. Nor will the authorities of the Department of the Interior be altered in administering the Indian Self-Determination Education Assistance Act. A statement to this end is included in the "Administrative and National Policy Requirements" section of the Draft and Revised Draft Frameworks.

In response to comments about the definition of the term "cultural resource" and the broader cultural significance of marine resources to indigenous peoples, the agencies agree that further clarification is needed. To this end, additional language was added to the Revised Draft Framework to clarify that the "cultural resource" definition is inclusive of tribal sacred sites and other submerged tribal places of cultural, historical, and archeological value, including sacred waters. Similarly, text was added to acknowledge the broader cultural importance of many marine resources beyond the definition of "cultural resource," such as the importance of fishing as a way of life for many indigenous communities.

Comment Category 8: Federal Agency Responsibility to Avoid Harm

Comment Summary:
Several comments requested additional details on standards and protocols to aid agency compliance with the avoid harm directives of the Executive Order, including an augmented oversight role for the MPA Center. A related comment was received requesting the strengthening of accountability and implementation standards for federal agencies under this provision.

Response:
As described in the Draft Framework, each federal agency is responsible for complying with and reporting annually on its compliance with the Executive Order's Section 5 avoid harm directives: "*each federal agency that is required to take actions under this order shall prepare and make public annually a concise description of actions taken by it in the previous year to implement the order, including a description of written comments by any person or organization stating that the agency has not complied with this order and a response to such comments by the agency."* The MPA Center role is to make these reports available to the public on the <http://www.MPA.gov> website, facilitate a federal agency coordination mechanism through the Federal Interagency MPA Working Group, and upon request by federal agencies, facilitate technical or other assistance.

Comment Category 9: Stewardship, Coordination and Benefits
Summary:
A range of commenters requested clarification on the types of benefits the national system can provide to MPAs participating in the national system, as well as to the nation. A number of concerns also were raised regarding the time and effort that may be required of managing agencies to maintain sites in the national system once they have joined.

Response:
The agencies agree that a more detailed description of the value and benefits of the national system is needed. Based on input from the MPAFAC and other stakeholders, a new section on the benefits of the national system was included in the Revised Draft Framework.

To address specific concerns about the benefits that the national system can provide to participating MPAs and MPA programs, a process for creating regional MPA Science, Stewardship, and Effectiveness Strategies (MPASSES) has been added to the Revised Draft Framework. The process for developing MPASSES clearly describes how the technical assistance priorities of MPA programs and sites in the national system will be inventoried and used to catalyze action and derive support and benefits from the national system.

Comment Category 10: No take MPAs
Summary:
A broad spectrum of comments was received on the topic of no-take MPAs (a.k.a. marine reserves). These comments ranged from requests for a national network of no-take MPAs, to a specified target number for the amount of U.S. no-take area, to concerns that there should not be any no-take areas given their perceived undue limitation on access. Additionally, a number of commenters referred to a specific disinterest in any new MPAs, especially no-take areas in their region (e.g., New England, Gulf of Mexico, etc.).

Response:
In response to these comments, the agencies maintain that neither the national system nor the Order have the authority to establish new MPAs, require a certain level of protection for an MPA in the national system, or prescribe a total amount of U.S. waters that should be protected through MPAs. In addition, the national system is intended to be inclusive of MPAs across the spectrum of levels of protection, from multiple use to no-take, recognizing that existing MPAs across this spectrum offer different values to the national system that can help meet its goals and objectives. Finally, the processes in the Revised Draft Framework for identifying conservation gaps in the national system and supporting regional MPA planning are designed to ensure opportunities for public input on the purpose and level of protection of any future MPAs that may be needed to achieve a comprehensive, representative national system.

Comment Category 11: Regional, national and international coordination
Summary:
A significant number of comments were received on issues related to the regional, national, and international coordination functions, processes, and characteristics of the national system.

Comments on regional coordination included requests for more detailed information about: the geographic scope of national system 'regions;' a strengthened regional approach; the administrative structure that would support a regionally-coordinated national system; and how the national system will work with existing regional institutions that may already exist or be in development.

With regard to national coordination, several commenters expressed an interest in having representatives of Federal Fishery Management Councils as possible members of the National System Steering Committee.

Finally, in the context of international coordination, commenters suggested clarification of the international linkages and role of the national system.

Response:
The agencies agree that a more detailed explanation of the regional collaboration process is needed. To this end, a more robust regional coordination section has been added to the Revised Draft Framework. In addition, the set of U.S. large marine ecosystems has been included as the underlying framework for the national system's regional coordination, gap analyses, and MPA planning processes. The Revised Draft Framework also acknowledges that many other regions exist (e.g., Federal Fishery Management Council regions, biogeographic regions, state-based institutions, etc.) and recognizes certain tasks and processes may be best completed at nested or sub-regional levels.

In response to comments regarding national coordination, representatives of Federal Fishery Management Councils have been listed as possible members of the National System Steering Committee.

Finally, the agencies agree that in the same way the national system can help address resource management issues that may go be beyond the scope of a single MPA or state, a clear international coordination function can help address many marine resource conservation issues whose problems and solutions extend beyond U.S. borders. As such, an improved description of the national system's international coordination function has been included in the Revised Draft Framework.

Comment Category 12: Draft Environmental Assessment
Summary:
One commenter raised several issues about regarding the draft environmental assessment (EA). These comments included: 1) the finding of no significant impact was not accurate in that the Framework was likely to have a major environment and socioeconomic impact; 2) that a reasonable range of alternatives was not analyzed; 3) that certain sections were mislabeled; and 4) that a full environmental impact statement should be completed.

Response:
The agencies disagree and believe that the EA accurately justifies the finding of no significant impact and assesses a reasonable range of alternatives in doing so. Moreover, the Framework itself will not have a significant effect (positive or negative) on the environment as it serves administrative, managerial, and coordination roles. Any future action that might have an effect on the human environment would require NEPA compliance independently since the MPA Center cannot create new MPAs.

The reason for the simplified range of alternatives in the EA is that any alternative other than those described would simply be a different managerial strategy to achieve the goals of the Order. As such, because the agencies are bound by the Order to achieve certain goals and operating procedures, any impact analysis of the various organizational permutations would show no difference between additional potential alternatives and the preferred.

The agencies do agree with the comment that the "Affected Environment" section in the EA was misleading to readers by titling a subsection "Importance to Americans." This section discusses the social, economic and cultural benefits (both direct and indirect) of protecting resources and environments and should be more appropriate labeled.

Appendix D. Revised Draft Environmental Assessment

Lead Agency:
Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service

Cooperating Agency:
Department of the Interior, National Park Service

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Purpose and Need for this Environmental Assessment

Executive Order 13158 on MPAs

Executive Order 13158 on Marine Protected Areas (2000) calls on the Department of Commerce and the Department of the Interior (DOI), in consultation with other federal agencies and stakeholders, to develop a national system of marine protected areas (MPAs) to enhance the conservation of the nation's natural and cultural marine heritage. The Executive Order created the National Marine Protected Areas Center (MPA Center) within the National Oceanic and Atmospheric Administration (NOAA) to coordinate this effort. The mission of the MPA Center is to facilitate the effective use of science, technology, training, and information in the planning, management, and evaluation of the nation's system of marine protected areas.

The National System of MPAs

Currently, over 1,500 marine areas have been identified in the United States (U.S.) that are managed under the authority of hundreds of federal, state and territorial (state), tribal, and local laws and regulations (Table 4). Familiar examples of MPAs include national and state marine sanctuaries, parks, wildlife refuges, and some fishery management areas. This patchwork of protected areas is an important component of the nation's marine conservation mission, but would be greatly enhanced by the improved coordination and integration across sites and MPA programs that a national system will provide.

Table 4. Examples of Existing U.S. MPAs

MPA Name and Location	**Name of Managing Agency and Type of Management**	**MPA Description***
Ashepoo-Combahee-Edisto (ACE) Basin National Estuarine Research Reserve South Carolina	Federal/State Partnership Management: National Oceanic and Atmospheric Administration and South Carolina Department of Natural Resources	ACE Basin is one of the largest undeveloped estuaries on the East Coast. Diverse estuarine wetlands provide an extensive complex of wildlife habitat types; the region contains 91,000 acres of tidal marshes, 26,000 acres of managed impoundments, and 12,000 acres of maritime islands.
Manele-Hulopoe Marine Life Conservation District (MLCD) Hawaii	State Management: Hawaii Department of Land and Natural Resources	The Manele-Hulopoe Marine Life Conservation District (MLCD) is located in the waters offshore of Palawai and Kamao on the southwestern coast of Lanai. Within Manele Bay corals are most abundant along the sides of the bay near the cliffs, where the bottom slopes off quickly to about 40 feet. The middle of the bay is a sand channel. Just outside the western edge of the bay near Pu‘u Pehe rock is "First Cathedrals," a popular SCUBA destination. Hulopo‘e Bay has large tidepools at its left point. A shallow reef is just offshore, providing excellent snorkeling opportunities. Pu‘u Pehe Cove has clear water and considerable marine life. Coral growth is interspersed with sand patches, and most coral is found away from the narrow beach in about 10 to 15 feet of water.

North Fork, St. Lucie Aquatic Preserve Florida	State Management: Florida Department of Environmental Protection	The North Fork, St. Lucie Aquatic Preserve contains various aquatic habitats such as riverine, blackwater stream, tidal marsh, slough, and floodplain forest communities. The headwaters of the North Fork are composed of freshwater from Ten Mile and Five Mile Creeks. Downstream, brackish conditions support tidal marshes with mangroves, leatherfern, and sawgrass.
Monomoy National Wildlife Refuge Massachusetts	Federal Management: Department of the Interior, U.S. Fish and Wildlife Service	Monomoy is comprised of 7,604 acres of barrier beach, sand dunes, freshwater ponds, and saltwater marshes. Monomoy provides habitat for hundreds of species of resting, feeding, and migratory birds. The refuge supports the largest nesting colony of common terns in the Gulf of Maine and second largest on the Atlantic Seaboard with close to 8,000 nesting pairs in 2001. Monomoy is the largest haul-out site of gray seals on the Atlantic Seaboard as well.

** Only the marine portion of the described areas are considered to be a part of the MPA; the terrestrial components, while a part of the larger management unit, are not considered to be part of the MPA.*

The National System of MPAs (national system) will be built collaboratively by existing MPA sites and systems through partnerships at the ecosystem, regional, and national levels. The national system will focus on supporting shared priorities for enhancing coordination and stewardship of partner MPA sites and systems in order to improve effectiveness. The national system may ultimately include some new areas vital to the conservation of significant natural and cultural marine resources. These may be identified by national system partners through regional planning or other processes, and will be based on the best available science and stakeholder involvement. Any new MPAs would need to be designated through an existing federal, state, tribal, or local authority, as the Executive Order provides no authority to create new MPAs.

Need for Action

The Executive Order calls on the MPA Center to develop a Framework for the National System (Framework). This Revised Draft Framework is the second version of the initial draft Framework, revised with due consideration of comments and recommendations received on the initial draft document during the September 2006 through February 2007 public comment period. After the comment period on this Revised Draft Framework, NOAA will publish the final Framework, again with consideration of input received. This Environmental Assessment has also been revised based on comments received during the 2006-2007 comment period.

The purpose of the proposed Revised Draft Framework document is to serve as a “road map” for developing the national system that will specify a common vision, goals, objectives, and criteria for the national system, as well as the process for partnerships among federal, state, tribal, and local government agencies and stakeholders to develop it. While the Executive Order and the Revised Draft Framework document are non-regulatory, the MPA Center is developing this Environmental Assessment to provide federal and state agencies, tribes, and

other stakeholders with the best available information on the potential impacts of the Revised Draft Framework document during its public comment period.

Description of Alternatives

Alternatives Considered, but Rejected

In considering alternatives for proposing the Revised Draft Framework, the following two were selected as constituting a reasonable range of alternatives for this Environmental Assessment: "Alternative A: Take No Action," and "Alternative B: Propose the Revised Draft Framework for Developing the National System of MPAs." Numerous other possible alternatives were, however, informally considered by NOAA for analysis, but ultimately rejected, such as:

1. Publishing only limited information, such as the national system MPA definition and related criteria in the Revised Draft Framework, and publishing separate guidance at a later date on other requirements of the Executive Order, such as processes for developing the national system and implementing the "avoid harm" provision.
2. The very large number of alternatives that would result from all the possible permutations of changes in the Revised Draft Framework's approach to meeting the various requirements of the MPA Executive Order.

In considering (1) above, it was determined that publishing only limited information in the Revised Draft Framework would not fully meet the intent and requirements of the Executive Order. In that sense, publishing only limited information in the Revised Draft Framework is fundamentally no different than Alternative A, since it too would fail to meet all of NOAA's goals and requirements for implementing the Executive Order.

Alternative (2) above describes the potentially large number of alternatives that would result from developing possible options for each element of the Revised Draft Framework. Several factors led to the determination that this approach and set of alternatives should be rejected.

First, the Revised Draft Framework lays out a series of processes for U.S. MPA programs, agencies, authorities, and other stakeholders around the country to work together to determine eligible MPAs and the most appropriate, specific approaches for developing the national system. Because the Revised Draft Framework is focused on agency and stakeholder processes to determine specific approaches and actions, the environmental consequences of alternatives as described under (2) cannot be predicted to be significantly different than Alternative B.

Second, and most important, the processes outlined in the elements of the Revised Draft Framework are based on input received from consultations with and recommendations from MPA stakeholders around the country, including the MPA Federal Advisory Committee, as required by the Executive Order. Creating a range of alternatives that are either independent of these consultations or consider only some of the recommendations received or would not meet the requirements of the Executive Order.

Having considered additional alternatives for proposing the Revised Draft Framework for the National System, NOAA has determined that the two described below constitute a reasonable and practical range of alternatives for assessing the anticipated environmental consequences of fulfilling the requirement to develop the Draft Framework.

Alternative A: Take No Action

Under this alternative, NOAA would not propose a Revised Draft Framework as required by the MPA Executive Order. Thus the MPA Executive Order would stand alone without any further

detail of the processes necessary for developing the national system. For example, there would be no description of processes for identifying and including existing MPAs in the national system, working with MPA programs to collaboratively identify and address common stewardship needs, or identifying place-based gaps in protection.

Alternative B: Propose the Draft Framework for Developing the National System of MPAs (Preferred)

This alternative would fulfill the directive of the MPA Executive Order to develop a Framework. The Revised Draft Framework provides guidance for developing the national system and therein implementing key elements of the Executive Order. The full descriptions of the proposed national system elements and associated processes are contained in the Revised Draft Framework and summarized here as:

- Summary of authority for developing the Draft Framework and national system.
- Overview of key U.S. MPA programs and related initiatives.
- Key definitions for developing the national system.
- Goals and objectives for the national system.
- Sequence and steps for implementing the Draft Framework.
- Process for identifying, nominating, and including MPAs in the national system.
- Options for building collaborative efforts to enhance stewardship and regional coordination of MPAs.
- A process for identifying conservation gaps in the national system.
- Maintenance of the official List of MPAs.
- Process for implementing the “avoid harm” provision.
- Options for evaluating effectiveness of the national system.
- Mechanisms for tracking and reporting national system progress and priorities.

Description of Affected Environment

The geographic extent of the Revised Draft Framework and the nation’s existing MPAs that it aims to support span the United States territorial waters and Exclusive Economic Zone waters of the Pacific Ocean, including the Bering Sea; Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea; Arctic Ocean, and the Great Lakes. This environment encompasses the entire range of the nation’s marine ecosystems including their natural heritage, cultural heritage and sustainable production resources and functions, goods, and services.

Natural Heritage Resources

The nation’s existing MPAs, whether managed by federal, state, tribal, or an inter-governmental collaboration of agencies help to conserve and restore the wealth of U.S. natural marine environments including but not limited to kelp forests, warm and cold water coral reefs, rocky intertidal areas, offshore banks and seamounts, estuarine areas, the Great Lakes waters, deep sea vents, and sand and mud flats. In these marine environments, MPAs play an important role in protecting the significant natural biological communities, endangered and threatened species, habitats, ecosystems, processes, and the ecological services, uses, and values they provide to this and future generations. These various components of the nation’s marine environment are critical to maintaining the integrity and health of marine and coastal ecosystems. Oftentimes managing for one of these elements means protecting the others. For example to effectively manage endangered or threatened species, the habitat they rely upon must also be protected.

Sustainable Production Resources

Existing U.S. MPAs are also designed and established with the intent to help ensure the sustainability of the renewable living resources and their habitats, including, but not limited to, spawning, mating, and nursery grounds, and areas established to minimize incidental by-catch of species, that are important to the nation's economy, livelihoods, and subsistence. MPAs can help to sustain commercial and recreational fisheries by controlling fishing effort, protecting critical stages in the life history of fishery species, conserving genetic diversity of exploited species, reducing secondary impacts of fishing on essential fish habitat and other species, and ensuring against fisheries collapse (Murray et al. 1999; NRC, 2001). MPAs may allow site-specific regulation of selected species, selected gear types, or fishing methods. Certain MPAs or zones within MPAs may be fishery reserves that protect all or nearly all species from fishing. Many studies indicate that abundance and size of target species increase in marine protected areas that limit extractive use (Dugan and Davis, 1993; Crowder et al., 2000; Halpern, in press).

Cultural Heritage Resources

The nation's existing MPAs preserve and protect important cultural resources. These cultural resources reflect the nation's maritime history and traditional cultural connections to the sea, as well as the uses and values they provide to this and future generations. Examples include archeological sites that contain significant cultural artifacts; sunken historic ships, aircraft, or other vessels; and areas important to specific cultures. Protecting cultural resources in MPAs reduces the chance that artifacts will be removed or damaged from modern-day commercial or recreational activities. Unlike many biological communities that have some level of resilience to recover from degradation, once underwater cultural sites are damaged, the information and value of these non-renewable resources may be lost forever. MPAs are an important tool for conserving cultural resources by monitoring the environment for change and stabilizing deteriorating structures. MPAs also encourage actions to find, preserve, and interpret the associated artifacts that may otherwise be inaccessible to the public. By protecting marine sites that are important to the nation's diverse cultures, existing U.S. MPAs preserve a part of history for future generations.

Current Governmental Management Structure

The past several decades have witnessed a dramatic increase in the use of MPAs as a conservation and management tool to protect the nation's most important natural and cultural marine resources and areas. Over 90 percent of U.S. marine managed areas and MPAs were established after 1970 (National MPA Center Marine Managed Area Inventory, 2006). The growth in MPAs has not only resulted in increased protections to certain natural and cultural marine resources, but also brought about a significant number of new MPA programs and authorities at all levels of government, each with their own requirements, levels of protection, and associated terms.

These programs and the MPA sites that they manage are components of a complex sociopolitical landscape that features diverse institutions, governance structures, and processes. They include, for example, federal programs such as the National Marine Sanctuaries and National Parks; tribal MPA authorities and co-management arrangements with states; state programs such as fish and wildlife, coastal zone management, and historic preservation; and other governmental approaches to MPAs.

Each of these programs has its own mandate it is required to fulfill. These mandates often overlap in both geographic scope and the conservation purposes for which they are established. In addition, while many existing MPA programs comprise a system of MPAs, there are a limited number of mechanisms in place to coordinate MPA efforts across ecosystem, regional, national,

or international levels among MPA programs and levels of government. This is not to say that no such coordination is happening. In fact, there are a number of good examples of existing MPA sites and programs in a common geography working together, which serve as excellent models. However, there is no overarching MPA framework for facilitating and promoting such coordination across levels of government and at an ecosystem or regional scale around the nation. Similarly, the effectiveness of the existing suite of MPAs in contributing to the long-term sustainability of important resources, habitats and ecosystems, and the services and values they provide is largely yet to be determined.

Social, Economic and Cultural Benefits

MPAs in the U.S. and its territories provide social, economic, and cultural benefits by protecting resources and environments. These benefits come in many forms, both tangible and intangible, and direct and indirect. Direct, tangible benefits may include supporting the socioeconomic well-being of communities tied to our nation's fisheries by enhancing stocks for sustainable harvest and recreational opportunities. These communities provide significant inputs to the U.S. economy and many have long and storied historical connections to the marine environment. MPAs that ensure sustainable production have the intangible benefit of promoting cultural continuity and identity, which is instrumental in maintaining healthy communities.

By protecting key resources and habitats, MPAs can also promote greater economic returns from tourism through enhanced visitor experiences. These direct economic benefits are inextricably linked with the intangible quality of visitor experience. Good water quality, abundant living resources, and scenic, aesthetic ocean environments attract visitors to coastal areas around the globe. These visitors engage in diverse activities that include non-extractive uses of the marine environment, such as scuba diving, snorkeling, wildlife watching, boating, and surfing, as well as extractive uses such as fishing. All of these activities rely on healthy marine environments. U.S. MPAs help ensure that marine environments will continue to draw the visitors that have become critical to many coastal economies. For example, in Monroe County, Florida, location of the Florida Keys National Marine Sanctuary and other marine-related parks and wildlife refuges, the estimated total tourist contribution to the economy (1995-1996) is over 60 percent (English et al., 1996).

MPAs also provide direct, tangible benefits by providing opportunities for research and education. Certain MPAs feature academic and applied monitoring of short-term events and long-term environmental trends, as well as biomedical research (Salm et al, 2000).

MPAs can provide hands on experience and outdoor laboratories for bringing classroom studies to life. MPA educational programs have the potential to promote public awareness of the importance of marine ecosystems and their many benefits.

MPAs also protect historic connections to our nation's heritage that are critical to social and cultural continuity. People and communities are connected to marine resources, including both natural and cultural features. These connections are affirmed through direct practice, oral and written narrative, and everyday discourse. MPAs can enhance cultural connectivity to places by ensuring their protection for future generations, allowing traditional cultural practices, promoting awareness of our nation's heritage, and acknowledging existence and bequest values inherent in marine resources.

Environmental Consequences of Proposed Action and Alternatives

Alternative A: Take No Action

Environmental Impacts

Taking no action would result in no predictable direct or indirect environmental impacts, either positive or negative. The 'Take No Action' alternative would not allow for the realization of the benefits expected from the proposed Revised Draft Framework's greater integration and coordination of conservation efforts among existing authorities and sites.

Socioeconomic Impacts

Taking no action would result in no predictable direct socioeconomic, either positive or negative. The 'Take No Action' alternative would not allow for the realization of the benefits expected from the proposed Revised Draft Framework's greater integration and coordination of conservation efforts among existing authorities and sites.

<u>Alternative B: Propose the Draft Framework for Developing the National System of MPAs (Preferred)</u>

Environmental Impacts

The proposed Revised Draft Framework is not expected to result in adverse impacts on the environment. The Revised Draft Framework proposes to coordinate the activities among federal, state, tribal, and local MPA sites and systems to reduce administrative costs, and promote efficiency and the effective use of existing management infrastructure for marine resource protection.

The Revised Draft Framework will provide opportunities for shared information, resources, scientific expertise, and lessons learned for individual MPAs. The proposed Revised Draft Framework mostly involves a number of low or no impact activities that will positively affect the stewardship and management of individual MPAs and ultimately lead to beneficial long-term environmental impacts and improved quality of the nation's marine resources relative to Alternative A. Additional environmental analysis of future activities, as required under NEPA and other acts and executive orders, would be prepared as necessary by the relevant agency or agencies taking any such actions.

The Revised Draft Framework also promotes activities over time to identify gaps in protection of important marine resources and subsequent area-based conservation priorities that would be needed to manage and protect those resources. This component of the Revised Draft Framework is similarly comprised of a number of low or no impact activities that ultimately could lead to beneficial long-term environmental impacts relative to Alternative A. In order to realize these benefits, however, actions to implement new or increased protections would be needed. Activities taken by individual agencies in the future, such as changes in MPA regulations or the establishment of new MPAs as a result of the implementation of the proposed Revised Draft Framework will undergo separate NEPA analysis by agency taking such actions as required and appropriate.

Socioeconomic Impacts

The proposed Revised Draft Framework is not expected to result in adverse socioeconomic impacts. The Revised Draft Framework provides guidance for the implementation of the national system. It does not establish new MPAs or directly affect the stewardship and management, including human uses and values, associated with existing MPAs. The socioeconomic impacts of, for example, the long term cumulative effects of developing the national system will be assessed as necessary under NEPA and other federal mandates for specific actions taken by those agencies or programs with the authority to establish and manage MPAs and/or alter MPA regulations.

In proposing to integrate the activities and conservation objectives among the various authorities, the Draft Framework will have its most immediate effects upon the communication

and organizational structures across the various levels of MPA governance. As a result, there is great potential, relative to Alternative A, for long-term positive socioeconomic impacts from promoting integration among government authorities, enhancing knowledge and awareness of MPAs as a tool of ecosystem based management, and supporting processes for incorporating stakeholders and communities in ecosystem management.

Furthermore, the implementation of the national system as proposed by the Revised Draft Framework will have long-term positive impacts, relative to Alternative A, for participating MPA sites, their associated marine resources, and the wider ecosystems of which they are a part. The national system will seek to integrate natural heritage, cultural heritage, and sustainable production objectives in order to minimize adverse socioeconomic impacts and promote comprehensive MPA conservation and management. It will focus on improving the effectiveness of MPA design, management, and evaluation through dissemination and use of the best available science and tools.

Additional socioeconomic analysis as required under NEPA and other acts and executive orders would be prepared by the relevant agency or agencies as necessary for future specific actions.

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Finding of No Significant Impact
NOAA Administrative Order (NAO) 216-6 (revised May 20, 1999) provides 11 criteria for determining the significance of the impacts of a proposed action. These criteria are discussed below with respect to the proposed action (Alternative B).

1. Impacts may be both beneficial and adverse– a significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
NOAA expects the implementation of the proposed Revised Draft Framework will result a number of low or no impact activities that will positively affect the stewardship and management of individual MPAs and ultimately lead to beneficial long-term environmental impacts and improved quality of the nation's marine resources.

2. What is the degree to which public health or safety is affected by the proposed action?
Public health and safety will not be affected by the proposed action. The Revised Draft Framework for the National System of MPAs simply implements the Executive Order and does not affect public health and safety.

3. Are there unique characteristics of the geographic area in which the proposed action is to take place?
The nation's MPAs and the important natural and cultural resources that they protect encompass the breadth of unique biological, physical, and cultural aspects associated with the marine environment.

4. What is the degree to which effects on the human environment are likely to be highly controversial?
While MPAs are often a contentious subject, the effects of the proposed Revised Draft Framework on the human environment are not likely to be controversial. The actions and activities associated with the various components of the Revised Draft Framework focus on promoting coordination, collaboration, opportunities for stakeholder input, and enhancing scientific understanding in support of effective use of MPAs. These activities are largely of low or no impact to the human environment, but are envisioned to positively affect the stewardship and management of individual MPAs and ultimately lead to beneficial long-term impacts on the human environment and improved quality of the nation's marine resources.

5. What is the degree to which effects are highly uncertain or involve unique or unknown risks?
The proposed Revised Draft Framework is not considered to involve highly uncertain, unique, or unknown risks.

6. What is the degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration?
The proposed Revised Draft Framework establishes guidelines for the development of the National System of MPAs and sets some precedent for future action. These future actions, however, are largely of low or no impact to the human environment and are envisioned to positively affect the stewardship and management of individual MPAs and ultimately lead to beneficial long-term environmental impacts and improved quality of the nation's marine resources. Additional environmental and/or socioeconomic analysis of future activities, as required under NEPA and other acts and executive orders would be prepared as necessary by the relevant agency or agencies.

7. Does the proposed action have individually insignificant but cumulatively significant impacts?
The activities associated with the proposed Revised Draft Framework are largely of low or no impact to the human environment, but are envisioned to positively affect the stewardship and management of individual MPAs and ultimately lead to beneficial long-term impacts on the human environment and improved quality of the nation's marine resources.
8. What is the degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources?
The proposed Revised Draft Framework is consistent with executive orders, laws and policies protecting significant scientific, cultural, and historic resources. No adverse effects are expected to entities listed in or eligible for listing in the National Register of Historic Places or those of significant scientific, cultural, or historic resources.

9. What is the degree to which endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973, are adversely affected?
Endangered and threatened species and critical habitat for such species may eventually benefit from the Revised Draft Framework as it serves to improve the quality of the nation's marine resources over the long term.

10. Is a violation of Federal, state, or local law for environmental protection threatened?
No laws protecting the environment are threatened by the proposed Revised Draft Framework.

11. Will the *proposed* action result in the introduction or spread of a non-indigenous species?
The proposed Revised Draft Framework will not result in the introduction or spread of a non-indigenous species.

<u>List of Preparers and Agencies Consulted</u>
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Notes

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